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THE ZOROASTRIAN SANITARY CODE.

S. E. DUBASH, L.M. & S.

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આ નિબંધ વિશે ખુલાસો.

રાહનુમાએ મજ્દયસ્નાન સભાની કારોબાર મંડળી હસ્તક શેઠ ખરશેદજી રૂસ્તમજી કામાએ નીચે જણાવેલાં નામ અને વિગત સાથેનો એક ઇનામનો રેસાલો લખાવી માંગ્યો હતોઃ—

શેઠ ખરશેદજી રૂસ્તમજી કામાજી તરફનો રૂ. ૫૦૦ નાં ઇનામનો રેસાલો.

જરતોશ્તી પવિત્રાઇઃ

યાને જરતોશ્તી મજહબ પ્રમાણે માણસો અને વસ્તુઓને સ્વચ્છ રાખવાના કાયદા અથવા તબીબી વિદ્યા મુજબના ખુલાસાવાર સબબો સાથેનો

ZOROASTRIAN SANITARY CODE.

ઉપલાં નામનો અને એ વિગત મુજબનો એક ઇનામનો રેસાલો ઇંગ્રેજી ભાષામાં લખી માંગવામાં આવે છે, જે આવતી તા૦ ૩૧ મી ડીસેમ્બર ૧૮૯૭ સુધીની મુદતમાં નીચે સહી કરનાર ઉપર મોકલી આપવો જોઇશે.

લખાઇ આવેલા રેસાલાઓ તપાસવા માટે એક કમિટી મુકરર થશે અને જે નિબંધ પસંદ પડતો થશે તેના લખનારને ઉપલું ઇનામ આપવામાં આવશે.

લખનારાઓએ પોતાનું નામ એક પરબિડાંમાં બંધ કરી મોકલવું, અને જે તખલ્લુસવાળો નિબંધ ઇનામને લાયક ઠરશે તેનેજ લગતું પરબિડું ઉઘાડવામાં આવશે.

મુંબઇ, તા૦ ૧૪ મી નવેમ્બર ૧૮૯૬.

પાહલનજી બરજોજી દેશાઇ,
ઑનરરી સેક્રેટરી.

ઉપલી સભાની કારોબાર મંડળીને આ બાબતમાં ઠરાવેલી મુદતમાં રેસાલા નહિ મળવાથી તે માટેની મુદતમાં વારંવાર વધારો કરી આપવામાં આવ્યો હતો. આમ છતાં ફક્ત એકજ રેસાલો લખાઇ આવ્યો હતો, જે તપાસવા માટે શમ્સ-ઉલ-ઓલમાં એરવદ જીવનજી જમશેદજી મોદી બી.. એ., અને ડૉ૦ દાદાભાઇ નવરોજજી સાહેર, એલ. એમ. એંડ એસ. ની કમિટી ઠરાવવામાં આવી હતી. આ કમિટીએ ઉપલો રસાલો, જેના ઉપર [illegible] એવો તખલ્લુસ હતો, તેને ચોકસ શર્તે પસંદ કરીને નીચે મુજબનો રીપોર્ટ કીધો હતોઃ—

"આપે મોકલેલો The Zoroastrian Sanitary Code નામનો રેસાલો અમોએ તપાસ્યો છે.

"એ વિષય જે જે જુદા જુદા ભાગો અને વિભાગોમાં નીયમીત રીતે (Systematically) લખાવવો જોઇએ તેમ લખાયલો દીસતો નથી. કેટલીક બાબતો ફક્ત રેવાજોમાં ગણાય અને તંદરૂસ્તી (Sanitary) ની બાબતમાં નહીં ગણાય. બીજી પણ કેટલીક બાબતો—ખાસ કરીને પછવાડેના ભાગમાં—એવી છે કે જે વિષયના મથાલા હેઠળ આવે નહી. કોઇ બાબતોમાં લખનારના વિચાર અને અનુમાનો સાથ અમો મલતા થતા નથી. એવી કેટલીક બાબતોમાં અમારા વિચારો અને સુચનાઓ અમોએ વિષયનાજ હાશીયા ઉપર જણાવ્યાં છે, જે ઉપર લખનારનું ધ્યાન ખેંચીયે છીએ. આ રેસાલાનો મોટો આધાર વંદીદાદ ઉપર બાંધેલો દીસે છે. પણ જો અવસ્તાના બીજાં લખાણો જેવાં કે માહાબોખતાર, આતશ, બોરશીદ, મેહેર નીઆએશ ઇત્યાદીમાંથી ચોકસ ફકરાઓ તારવી કાઢી વંદીદાદની તેનેજ લગતી બાબતો સાથ ભેલી લખાણ કીધું હોત તો એ રેસાલાને મેહલાબથી જુદા જુદા બાબોમાં જેવા કે (૧) પાણી, (૨) હવા, ઉજાશ, (૩) ઠંડી અને ગરમીની અસર, (૪) માણસોને રેહેવા અને ન રહેવા લાયક જગ્યા, (૫) ખોરાક, (૬) ઉડતા રોગો અને તેના ઉપાયો ઇત્યાદી ગોઠવી શકાત.

"લખનારે હાથ ધરેલી બાબત હાલના આરોગ્ય વિદ્યા સાથ સરખાવાની બનતી કોશેશ કીધેલી છતાં, હાલમાં એ વિદ્યા ઘણી આગલ વધેલી હોવાથી સરખામણી કરવામાં એવણ પુરા ઇતેહમંદ નીવડેલા દીસતા

નથી. અલબતે ઘણીક બાબતોમાં આજની સુધરેલી વિદ્યા સાથ સરખામણી સંપુર્ણ રીતે થઇ શકે નહીં, તોપણ સામટી રીતે લખનારે સારી મેહેનત લીધેલી દીસે છે.

"એ વિષય જે નામ હેઠળ લખ્યો છે તે નામ કરતાં Health Laws of the Ancient Iranians એવાં નામ હેઠળ પ્રગટ થાય તો સારૂં.

"આ લખનારે પોતાની બાબત માટે સારો શ્રમ લીધો છે. થોડાક ફેરફાર સાથે અને વધારે સારી નીયમીત રચનાથી એ વિષય ગોઠવાય તો તે જેમ આપણા લોકોને તેમ બીજાઓને આપણા ધર્મ પુસ્તકમાં સમાવેલા તંદરોસ્તીના કાયદાઓ બાબે એક વાંચવા લાયક વિષય પુરો પાડશે.

"અમો એના લખનારને નેમેલું ઇનામ આપવાની ભલામણ કરીએ છીએજી."

પરીક્ષકોએ ઉપલા લખનારને ઇનામ આપવાની ભલામણ કરેલી હોવાથી તેમના તખલ્લુસવાળું પરબિડું ઉઘેડતાં કારોબાર મંડળીને ડૉ॰ સોહરાબજી એદલજી દુબાશ, એલ. એમ. એંડ એસ.નું નામ જણાયાથી તેમને રૂ. ૫૦૦ નું ઇનામ આપવામાં આવ્યું છે. એ ભાઇએ આગળ મુલ્લાં ફીરોજ મદ્રેસામાં અવસ્તાવાણીનો અભ્યાસ કેટલાંક વર્ષ સુધી કીધો હતો, અને હાલ એઓએ પોતાનો નિબંધ છપાવી પ્રગટ કરવાની પરવાનગી માંગવાથી કારોબાર મંડળીએ તે ખુશીથી આપી છે.

ખ॰ રૂ॰ કામા,
રાહનુમાએ મજદયસ્નાન સભાની
કારોબાર મંડળીના સરનશીન.

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PREFACE.

This Essay was written in response to the Notice which appeared from the Rahnumae-Mazdiasnan Subha in the issue of 12th October 1900 of some of the Parsee papers of Bombay, announcing a prize of Rs. 500 for the best Essay on the "Zoroastrian Sanitary Code." The Subha submitted it to two gentlemen for examination, who awarded the prize to it.

Acting upon the suggestion made by the Examiners, I have made a few alterations and modifications in the present Essay.

I have adopted as the groundwork of this Essay the translation of the Avesta text published by my late learned Avesta preceptor, Ervad Kavasji Edalji Kanga, but wherever I have thought it advisable to give preference to the version of the text given by a European scholar, I have mentioned his name or work in reference to it. Moreover, when I have not subscribed to the existing versions of the Avesta text, I have given my own version of the text rendered with the assistance of the existing versions and Ervad Kanga's Avesta Dictionary and Grammar. The version given by me of the text is literal, and the words put in parentheses are not expressed in the text, but are either explanatory or are added to complete the sense of the text. How far I have succeeded in this humble attempt, I leave it to the impartial judgment of the reader. I have tried my best to treat the various subjects of this Essay in a regular order, and to group under one heading all the facts affecting a particular subject stated here and there in the Avestaic literature.

The heading of each subject expressed in an interrogatory form is given, when possible, in the words of the text. Below the heading is given the

reply to the question, and next to it are given my own critical and explanatory notes and remarks corroborating them, when possible, with the opinions of famous authors. From my desire to make this Essay as accurate, interesting and useful as possible, I have devoted a good deal of time and pains in revising it and seeing it through the press. But notwithstanding all the pains that have been taken in making it as accurate as possible, the reader may discover some inaccuracies here and there, for which I crave his indulgence.

My object in publishing this Essay is to show my educated co-religionists how well the laws of the Vendidad enacted for the preservation of health and for the observance of the purity of things are in harmony with the laws of hygiene and the principles of the science of medicine.

In conclusion, I beg to express my sincere thanks to all the authors whose valuable works I have consulted in the preparation of this work.

SORABJI EDALJI DUBASH, L. M. & S.

Bombay, December 1906.

List of Books Consulted in the Preparation of this Work.

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&c. &c. &c.

The List of Abbreviations used in this Work:—

Yas.	stands for	Yasna.
Vend.	,, ,,	Vendidad.
Visp.	,, ,,	Visparad.
Kh. Av.	,, ,,	Khordeh Avesta.
S. B. E.	,, ,,	The Sacred Books of the East.
Dict.	,, ,,	Dictionary.
Haug.	,, ,,	Haug's Essays.

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THE ZOROASTRIAN SANITARY CODE.

CHAPTER I.

HEALTH AND LONG LIFE.

Health is considered from time immemorial to be the best happiness that could be secured by man in this mortal world. No happiness is considered to be perfect without it. No man who is not blessed with it, can be said to be truly happy, although he may have abundance of riches and other sources of comfort, for he cannot, on account of his ill-health, perfectly enjoy the happiness that he can secure through his wealth and other means. In fact, the Avestâ word *haurvatât* (from *haurva* = S. सर्व = all, whole, entire, and tât, a suffix denoting state and forming an abstract noun) primarily means *wholeness, soundness, perfection, perfect happiness*, (*i.e.*, the perfect happiness that can be secured in this material world), and secondarily health or "healthful weal."[1] That haurvatât = health or healthful weal is a synonym for the perfect happiness that can be secured in this material world as contrasted with *ameretât* (from *a* S. अ = not, *mere* S. मृ = to die and tât, a suffix denoting state) = immortality, which is synonymous with the everlasting happiness that can

1 Mills, Gâthâs, second edition, 1900, p. 58.

be secured in the other world, can be inferred from the following Gâthaic verses, and also from the first section of the Khordàd Yast quoted below, where health is stated to be the happiness of the righteous:—

Ustâ ahmâi yahmâi ustâ kahmâichiṭ
Vasê-khshayâs Mazdâo dâyâṭ Ahurô
Utayûitî tevîshi gaṭ tôi vasemî
Ashem deredyâi taṭ môi dâo Âramaitê
Râyô ashîs vangheus gaêm manangho.
(Yas. xliii., 1.)

Happiness (is) to him, happiness (is) to anybody to whom Ahura-Mazda, ruling at his own will may "grant the two everlasting powers (health and immortality)."[1] Verily, I desire (these two) of Thee for upholding righteousness. Mayest Thou give me on account of (my) supplication "splendour, holy blessings,"[2] (and) the life of the good mind.

Aṭ phravakhshyâ hyaṭ môi mraoṭ Spentôtemô
Vachê srûidyâi hyaṭ maretaêibyô vahistem
Yôi môi ahmâi sraoshem dân chayaschâ
Upâ jimen Haurvâtâ Ameretâtâ. (Yas. xlv., 5.)

I will declare the word which the Most Beneficent told me (and) which (is) the best for men to hear. Those who will offer me obedience and attention will secure Health and Immortality.

Ahmâi anghaṭ vahistem yê môi vîdvâo vaochaṭ haithîm
Mâthrem yîm Haurvatâtô Ashahyâ Ameretâtschâ.
(Yas. xxxi, 6.)

May the best (happiness) be to him! who having learnt the mâthra of Health, Righteousness and Immortality shall truly proclaim it to me.

1 Haug, p. 155. 2 Mills, S. B. E., Vol. xxxi., p. 98.

Mraoṭ Ahurô Mazdâo Spitamâi Zarathustrâi ajem dadhâm Haurvatâtô[1] narâm ashaonâm avâoscha raphnâoscha baoshnâoscha qitâoscha.

(Khordâd Yast., 1.)

Ahura-Mazda said to Spitama Zarathustra, 'I created Health (which is) the protection, the delight, the happiness and the comfort of righteous men.'

Again health and happiness are mentioned and praised together in the Avestâ, as is evident from the following sentences :—

Dasvare baêshazem âphrînâmi yûshmâkem dahmanâm narâm ashaonâm. (Yas. LXVIII., 15.)

I praise happiness and health of good and righteous men.

Dasvarecha baêshazemcha yazamaidê ..... paitistâtêê akhtinâmcha astaremanâmcha.[2] (Yas. LXXI., 17.)

We praise happiness and health ..... for resisting sickness and pestilence.

Zarathustra regards health and immortality so inestimable that he implores Mazda to give him both and promises Him to praise them with a good mind, as is evident from the following seventh stanza of the Vohukhshatra Gâthâ:—

Dâidî môi yē gâm tashô apaschâ urvarâoschâ
Ameretâtâ haurvâtâ spēnistâ mainyû Mazdâ
Tēvîshî utayûitî mananghâ vohû senghe.

(Yas. LI., 7.)

O Mazda, most Beneficent Spirit! "Thou who hast created earth, water, and trees, give me immortality and"[3] health. The two "everlasting powers I will praise with a good mind."[4]

1 From Khordâd (Kângâ Kh. Av., fifth edition, p. 205).
2 Diseases arising from filth. (Mills, S. B. E. Vol. XXXI., p. 331, *vide* foot-note.) 3 & 4 Haug, p. 169.

Health and immortality are also solicited in the following sentence:—

Mazē avaqyâi mazē raphenoqyâi dâidî haurvâtâo ameretâtâo. (Yas. LVIII., 7.)

'O Exalted[1] (Ahura-Mazda)! give (us) both health and immortality for (our) help and joy.'

Health is considered so important and valuable that it is often solicited in the different parts of the Avestâ as will be evident from the following quotations:—

Adha nô tûm Sraosha ashya huraodha zâvare dayâo hitaêibyô dravatâtem tanubyô. (Yas. LVII., 26.)

"Therefore may'st thou, O Sraosha, the blessed and the stately! grant swiftness to our teams, soundness to our bodies."[2]

Yim yazentê rathaêstârô bareshaêshu paiti aspanâm zâvare jaidhyantô hitaêibyô dravatâtem tanubyô. (Meher Yast., 11.)

Warriors invoke him (Mithra) on horseback, soliciting swiftness for (their) horses, health for (their) bodies.

Tâm yazata takhmô Tuso rathaêstârô bareshaêshu paiti aspanâm zâvare jaidhyantô hitaêibyô dravatâtem tanubyô. (Âvân Yast., 53.)

Thus, a valiant hero, praised her (Aredvisura) soliciting swiftness for (his) horses (and) soundness for (their) bodies.

Health is almost daily invoked by a Zoroastrian when he recites the well-known Formula, called *Ahmai raescha*, which is a part of Yasna LXVIII., and which is considered so important that it is recited at the end of every Yast, Nyâyis and Gâh. The trans-

1 (Kângâ Yas., p. 141.) 2 Mills. S. B. E. Vol. XXXI., p. 304.

lation of the sections of Yasna LXVIII., including this important Formula is as follows :—

O ye good waters of Ahura Mazda and relating to Ahura Mazda ! give him glory and lustre, (give) him soundness of the body, (give) him corporal happiness,[1] (give) him corporal success[2] ...(give) him longest life, &c., who invokes you with the best offerings, with the excellent offerings, and with the offerings of Haoma filtered by a righteous man.

(Yas. LXVIII., 10-11-12.)

That Zarathustra invoked Chist for strength, health, &c., is evident from the following :—

Zarathustra invoked her (Chist) for the thought of pure mind, for the word of pure speech, for the action of good deed, and for this gift, namely, may pure and most righteous Chist, created by Ahura Mazda, give him swiftness for both (his) feet, an acute auditory power for both (his) ears, strength for both (his) arms, soundness for (his) entire body, vigour for (his) entire body, and that visual power which the *Kara* fish living in water has. (Din Yast., 6-7.)

Health means not only the soundness of the body but also that of the mind. Zarathustra implores Mazda to strengthen his body with good mind in the following stanza of the Ahunavaitî Gâthâ :—

Vispâo stôi hujîtayô yâo zî âongharē yâoschâ hentî
Yâoschâ Mazdâ bavaintî Thwahmî hîs zaoshē
âbakhshôhvâ.
Vohu ukhshyâ Mananghâ khshathrâ Ashâchâ
ustâ tanûm. (Yas. XXXIII., 10.)

O Mazda ! give me in Thy love[3] these, (namely), all the happy conditions of life, which, indeed, existed,

1 Mills, vigour of the body S.B.E. Vol. XXXI, p. 322.
2 ,, prominence of form ,, ,, ,,
3 Mills. S.B.E. Vol. XXXI. p. 77.

which exist, and which will exist. Strengthen (my) body with good mind, with righteousness, with power and with happiness.

That Zarathustra obtained the vigour of the good mind is evident from the following line of the Ustavaitî Gâthâ :—

Hyaṭ môi vanghêus hazē jimaṭ mananghô.
(Yas. XLIII., 4.)

"For this reason the vigour of the good mind has fallen to my lot."[1]

That Jâmâsp, the Learned, wished to secure the power of the good mind is evident from the following stanza of the Vohukhshathra Gâthâ :—

Tâm chistîm Dē Jâmâspô Hvôgvô istois qarenâo Ashâ verentê taṭ khshathrem mananghô vanghêus vîdô. (Yas. LI., 18.)

Jâmâsp Hvogva,[2] the Learned, wishes for this wisdom, the splendours of riches, and the acquisition of the power of the good mind through righteousness.

That Zarathustra and his disciples implored Ahura Mazda to give them long life in order to secure the aims of their desire, namely, to devote their lives to the cause of virtue and to "overcome the torments of the tormentor," to make Vistâsp and his wife Hutaos accept Zoroastrianism, and to propagate it among his subjects is evident from the following quotations :—

Vohû gaidî Mananghâ dâidî ashâ-dâó daregâyû Ereshvâis Tû ukhdhâis Mazdâ Zarathustrâi aojônghvaṭ rafenô.

Ahmaibyâchâ Ahûrâ yâ daibishvatô dvaêshâo taurvayâmâ. (Yas. XXVIII., 6.)

1 Haug, p. 155. 2 *i.e.* of the Habub family.

"Come with the Good Mind, and give us long life, O Thou giver of blessings."[1] O Ahura Mazda! "do Thou by means of Thy lofty words (bestow) the (needed) powerful spiritual help upon Zarathustra and upon us, whereby we may overcome the torments of the tormentor."[2]

Apânô darego-jyâitîm â khshathrêm vanghêus mananghô. (Yas. XXXIII., 5.)
Do thou secure us long life in the sovereignty of the good mind.

Arethâ vôizdyâi kâmahyâ têm môi dâtâ
Daregahyâ yâus yêm vâo naêchis dârest itê.
(Yas. XLIII., 13.)

In order to secure the aims of (my) desire, give me Thou that (part) of long life which nobody has thus obtained from Thee.

Hanaêmâchâ jaêmâchâ Mazdâ Ahurâ Thwahmi raphnahî daregâyû. (Yas. XLI., 4.)
O Ahura Mazda! may we become worthy of, and may we win, long life "in Thy grace!"[3]

Zarathustrâ kastê ashavâ urvathô
Mazôi magâi kê vâ frasrûidyâi vastî
Aṭ hvô Kavâ Vistâspô yâhî. (Yas. XLVI., 14.)
O Zarathustra! who is thy true friend for the great Cause? And who desires to proclaim (it)? Really, (it is) Kava Vistasp, the Heroic.

Hakhshaya azemchiṭ* yô Zarathustrô fratemâ nmânanâmcha vîsâmcha zantunâmcha daqyunâmcha anghao daênayâo anumatayaêcha anukhtayaêcha anvarstayaêcha yâ Âhûiris Zarathustris. (Yas. VIII., 7.)

1 Mills. Gâthâs 1894, p. 11. 2 Mills. S. B. E. Vol. XXXI., p. 21. 3 Ibid, p. 290.

I who am Zarathustra and others* will guide the heads of houses, villages, towns and countries in conformity with the thoughts, words and deeds of this religion which pertains to Ahura and Zarathustra.

That Zarathustra wished to guide Vîstâsp and his wife in religion and that his wish was gratified is evident from Âvân Yast, 105 and 106 sections; Jamyâd Yast 84; Asisvang Yast, 46 and 47; and Gos Yast 26–27.

I think it expedient to terminate this very short theme on health by quoting a few more sentences from the Avestâ in praise of health in addition to those quoted on the page 3.

Avaṭ dasvare yazamaidê avaṭ baeshjem yazamaidê. (Visp. xx., 1.)
We praise this happiness: we praise this health.

Âcha yazamaidê.....vanghvimcha dravatâtem. (Visp. iv., 1.)
And we praise.....good health.

Haurvata ameretâta yazamaidê. (Yas. vi., 17.)
We praise both health and immortality.

Zaothrâbyô Haurvatâtem ameshem spentem yazamaidê. (Yast. iv., 9.)
We praise Khordâd Amashâspand with Zaothras.

As Khordâd Amashâspand, one of the seven archangels, presides over health, he is praised in the Khordâd Yast.

* K. R. Cama's Zarathost Namun, p. 103, foot-note.

CHAPTER II.

The Vendîdâd.

The word Vendîdâd is supposed to be a corruption of vî-daêvô-dâta. It primarily means the Provisions against the Demons, *i.e.* what is provided against the Demons "to guard against their evil influence,"[1] and secondarily means the book containing these Provisions. It is not only the Zoroastrian Sanitary Code, but also the Zoroastrian Moral and Penal Code. It is the Zoroastrian sanitary code, inasmuch as it treats of a variety of subjects affecting the health of man and the purity of things, and of the laws instituted for securing them. These laws which have the main object of preventing the propagation of any contagious or infectious disease among their observers are mainly founded on the well-known English saying "Prevention is better than cure." They are such as cannot fail to win our admiration, when we take into consideration the age in which they were enacted, for, although they are more than 4,000 years old, they can still stand the crucial test of science, and can be observed with advantage by those who want to maintain their health.

The Vendîdâd is a moral code, inasmuch as it treats of some moral precepts here and there. It is also a penal code, for it describes the varieties and degrees of punishment proportionate to the gravity of crimes to be inflicted on the persons adjudged guilty for violating any of the laws prescribed in it.

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1 Haug, see foot-note, p. 225.

(*a*) *The Age of the Vendîdâd.*

The Vendîdâd must have been written at an age subsequent to that of the well-known Gâthâs, but prior to that of some of the Hâs (Chapters) of the Yasna as well as to that of the Sarosh Yast Hâdokht, for it is praised in the former, and its followers are praised in the latter, as will be seen from the following quotations :—

Vîspemcha dâtem vîdôyûm yazamaidê.
(Yas. LXXI., 5.)

And we praise the whole Vendîdâd.

Dâtem Vîdôyûm yazamaidê dâtem Zarathustri yazamaidê. (Yas. XXV., 6.)

We praise the Law against the Daevas (Vendîdâd); we praise the Zoroastrian Law.

Kehrpem[1] Dâtahê Vîdaêvahê yazamaidê.
(Yast. XI., 22.)

We praise the body[1] of the Law against the Daeva, (*i.e.*, we praise the whole of the Vendîdâd).

Hakhaya[2] Dâtahê Vîdaêvahê (yazamaidê).
(Yast. XI., 17.)

(We praise) the followers[2] of the Vendîdâd.

About the age of the Vendîdâd Dr. Haug says, "Some parts are evidently very old, and might be traced to the first centuries subsequent to the prophet. . . . . The Vendîdâd as a whole (some of its parts seem to be lost, especially those containing the original texts, or the Avesta, of the old laws) is apparently the joint work of the Zarathushtras, or high priests, of the ancient Iranians, during the

1 Principal subjects, Kângâ, Kh. Av., fifth edition, p. 278.

2 Friends, Kângâ. Kh. Av., fifth edition, p. 275. I prefer to translate this word by *followers* from *hach* S. सच् to follow. (Vide K. D., p. 568.)

period of several centuries. They started with old sayings and laws (Avesta), which must partially have descended from the prophet himself."[1]

The age of the Vendîdâd may be put down as the age in which Urvatat-Nara lived, for he is mentioned to have been the temporal lord of the Varas of Yima in the last section of the second pargard of the Vendîdâd.

(b) The Superiority of the Vendîdâd to the other Books.

That the Vendîdâd was considered to be superior to the other books (lit. traditions) is evident from the 22-25 sections of its fifth pragard quoted briefly as follows :—

"O Creator! How much greater, better, and more excellent is this Zarathushtrian Provision against the Daevas above the other traditions in greatness, and goodness and excellence?"[2] (Vend. v., 22.)

Then said Ahura-Mazda :—'Verily, O Spitama Zarathustra! this Zarathustrian Provision against the Daeva (Vendîdâd) (is) superior to the other traditions in greatness, goodness, and excellence just as the Vouru-kash sea (is superior to the other seas[3],...just as the larger stream overruns the smaller streams,... just as the larger tree overshadows the smaller trees,... just as (the sky) encompasses this earth.'

(Vend. v. 23-25.)

I have thought it necessary to devote these few pages to the description of the Vendîdâd as the major portion of this Essay treats of what is described in this ancient Zoroastrian Sanitary Code.

1 Haug, pp. 225-226. 2 Haug, pp. 326-327. 3 Lit. waters.

CHAPTER III.

On the Number of the Diseases created on the Earth: on the figurative Discourse between the Earth and Mâthra Spenta; and on the Message of Ahura Mazda to Airyaman to cure these diseases.

(The Earth says to Mâthra Spenta):—'Then the serpent looked at me; then the Serpent, the deadly Angra-Mainyu, created ninety-nine thousand nine hundred and ninety-nine diseases for me. "So mayst thou heal me, thou most glorious Mâthra Spenta![1]" (Vend. XXII 2.)

"Unto thee will I give in return a thousand fleet, swift running steeds;.....a thousand fleet, high-humped camels,"[2].....a thousand oxen not lean and not decrepit,.....and a thousand domestic small cattle of all species &c. (Vend. XXII. 3-4.)

"And I will bless thee with the fair blessing-spell of the righteous, the friendly blessing spell of the righteous, that makes the empty swell to fulness and the full to overflowing"[3] &c. (Vend. XXXII., 5.)

'Mâthra Spenta, the all-glorious, replied to her[4]:—"How shall I heal thee? How shall I drive away from thee those ninety-nine thousand nine hundred and ninety-nine diseases?"' (Vend. XXII., 6.)

On Mâthra Spenta declaring her inability to cure the Earth of her ninety-nine thousand nine hundred and ninety-nine diseases, Ahura-Mazda sent word through Nairyôsangha, the herald, to Airyaman to cure the Earth of her ninety-nine thousand nine hundred and ninety-nine diseases, and to

1 S. B. E. Vol. IV., p. 236. 2 Ib. p. 237. 3 Ib. p. 237.
4 *i.e.*, to the Earth.

receive the above mentioned reward fixed for it. On hearing of this message from Ahura Mazda through Nairyôsangha, Airyaman quickly and urgently "set off towards the mountain of the holy Questions, towards the forest of the holy Questions."[1] He won the prize of nine stallions, nine camels, nine bulls, nine kinds of small cattle &c. (Vend. xxii., 7–20.)

The number of the diseases mentioned here is 99,999. The authors of the Vendîdâd have used this number to indicate that there are innumerable diseases which the rational and irrational animals living in this world are subject to. They are stated to have been created by the deadly Angra-Mainyu. To understand the meaning of this sentence one should know what Angra-Mainyu is. Spenta-Mainyu and Angra-Mainyu are the two Spirits of Ahura-Mazda. The former is His Creative Spirit, the latter, His Destructive Spirit, of life. This is evident from the following lines of the Ahunavaitî Gâthâ :—

Atchâ hyaṭ tâ hēm Mainyû jasaêtem paourvîm dazdê
Gaêmchâ ajyâitîmchâ. (Yas. xxx., 4.)

'Also when these two Spirits met together for the first time, they created life and non-reality.'[2]

As diseases fall into the head of non-reality, they are said to have been created by the Destructive Spirit of Ahura-Mazda, that is, by the deadly Angra-Mainyu of the Vendîdâd.

From the figurative discourse described above it appears that the object of the authors of the Vendîdâd for narrating it is to declare that all the diseases which the men and animals living in this world are subject to, cannot be cured by the recitation

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1 S. B. E Vol. iv., pp. 239-240. 2 Haug. p. 150.; non-life, Mills, Gâthâs in metre, second edition, 1900. p. 48.

of Mâthras only by the holy priest, but that some of them may be cured by it, while for the cure of others one must have recourse to medicinal plants and mineral substances found in forests and on mountains.

One can infer from the sections (3, 4, and 20, Vend. xxii.) quoted above that Airyaman obtained only a part of the reward assigned for the cure of 99,999 diseases by discovering a few of the medicinal plants and mineral substances that could be found in the forest and on the mountain visited by him for the cure of some of the diseases only, inasmuch as he obtained nine stallions, nine camels, &c., out of one thousand stallions, one thousand camels, &c., offered as the prize for curing 99,999 diseases.

2.

The Names of the Diseases mentioned in the Avestâ.

The names of a few diseases are given in the Avestâ. Some of the diseases mentioned in the Avestâ have not been identified by philologists.

The following is a list of the names of the diseases mentioned in the Avestâ that have been identified with the diseases known to us :—

Tafnu = Fever.	(Vend. xx., 3.)
Sârana = Headache.	„
Sârastya = Ague.	„
Azhivâka = Snakebite.	„
Astairya[1] = Hysteria ?	„
Mahrka = Plague.	„
Dâzhu = Burn.	„

1 From *a* = S. अ, a negative prefix, and stâ S. स्था to stand, hence *astairya*, a disease in which one cannot stand ; hysteria.

Paêsha = Leprosy. (Vend. II., 29.)
Pâman = Scabies. (Yast. XIV., 48.)
Vazemnô-asti = Caries of bones. (Vend. XX., 1.)

The following is a list of the names of the diseases stated in the Avestâ that have not been identified with the diseases known to us:—

Azhana.	(Vend. XX., 3.)
Azhahva.	,,
Kurugha.	,,
Duruka.	,,
Aghashi.	,,
Ishirê.	(Vend. XX., 9.)
Aghuirê.	,,
Aghrâ.	,,
Ughrâ.	,,
Gadha.	(Vend. XXI., 2.)
Apagadha.	,,

CHAPTER IV.

"When does the Druj-Nasu (the Demon of Putrefaction) rush upon the dead?"

(Vend. VII., 1.)

Then Ahura-Mazda answered–"O Spitama Zarathustra! directly after death, as soon as the soul has flown away from (the body), this Druj-Nasu rushes upon (the dead), 'from the regions of the north in the shape of a raging* fly, with knees and tail sticking out, droning without end'[1] like the most wicked kharafstars,[2] until the dog sees and eats (the corpse) or until the corpse-eating birds fly towards it. When the dog sees

* Stinking. K. Vend. p. 138.
1 S. B. E. Vol. IV., p. 77.
2 Noxious animals. Ib. p. 77.

or eats it up or the corpse-eating birds fly towards it, the Druj-Nasu rushes away to the northern regions "in the shape of a raging fly, with knees and tail sticking out, droning without end"[1] like the most wicked karafstras." (Vend. VII., 23.)

"O Creator! But if these (men have been) killed by a dog, or by a wolf, or by witchcraft, or by malice, or by falling down a precipice, or by a man, or by violence, or by the noose (*i. e.*, strangled to death) after what time does the Druj-Nasu rush upon (the dead)?" (Vend. VII., 4.)

Then Ahura-Mazda answered :—"After the next watch of the day, the Druj-Nasu rushes upon (them) &c." (Vend. VII., 5.)

It is said in the text that the Demon of Putrefaction rushes upon the corpse of a man directly after his death. This means that the corpse begins to decompose immediately after the death of the man. This statement is wisely laid down as a general rule, while the exception to this rule is stated in the above-mentioned section 4. One can easily see the wisdom of this general rule, when he comes to know that there are so many circumstances which enter into the question of putrefaction either hastening or retarding it, that only those who are fully acquainted with them can pronounce somewhat definitely when the corpse will begin to decompose in an individual case. When it is somewhat difficult for a physician to pronounce his definite opinion when putrefaction is likely to occur in a particular case unless he knows all its surrounding circumstances, it is much more difficult, nay, almost impossible, for a layman to know when putrefaction will set in in a certain case. Hence the reasonability of laying down as a general rule that decomposition begins in a body directly after the death of a person.

1 S. B. E. Vol. IV., p. 77.

General putrefaction of the body does not set in in a corpse immediately after the death of a person. It is, as a rule, always preceded by *rigor mortis* or cadaveric rigidity in which the muscles of the dead body become rigid by the coagulation of the muscle plasma and the formation of *myosin* or muscle fibrin. As regards the duration of rigidity, Dr. Guy says, "it may be stated as a general rule that if it sets in early it passes off quickly, and if it sets in late, it lasts long."[1] In some cases of death from lightning, it set in so early and passed off so quickly as not to attract observation. It is absent, according to Casper, in some cases of narcotic poisoning.[2] In such cases putrefaction sets in very early. Again, Dr. Guy says :—"Rigidity sets in early after death by lingering diseases, accompanied by general exhaustion, such as continued fevers, consumption, cholera, scurvy, and the asthenia of old age. In the feebly developed muscles of new-born children, also, rigidity sets in early."[3] "In many cases in which rigidity sets in early, it has entirely disappeared in the course of one or two hours."[4] Thus in the above-mentioned cases, in which rigidity sets in early and disappears quickly, putrefaction sets in early.

The exception to the general rule, viz., that the corpse begins to decompose immediately after the death of a man, is stated in the 4th and 5th sections of the text quoted above, where the Druj-Nasu is said to rush upon the corpse after the next watch of the day after death, if the man has been killed by dogs or wolves, by witchcraft, by malice (*i.e.* by poisons, according to the Pehlavi commentator),[5] by men (*i.e.* by decapitation, according to the same authority),[6] by violence, or by being strangled to death. In all these cases, as death occurs suddenly and very rapidly, the victims are in their full muscular vigour at the time of death, hence, rigidity sets in very late and lasts

1, 2, 3, and 4 Guy's Forensic Medicine, p. 252.
5 and 6 S. B. E. Vol. IV., p. 77.

long, consequently putrefaction sets in late, hence, the Druj-Nasu is said to rush upon the corpse at the next watch of the day after death. In corroboration of this explanation, I quote the following passage from "Principles of Forensic Medicine," by Drs. Guy and Ferrier:—

"On the other hand, rigidity occurs *late* in cases of death in full muscular vigour. It is slow in showing itself in death from apoplexy, hæmorrhage, wounds of the heart, decapitation,"(*mashyo jata i.e.* killed by men), "injury of the medulla, and also in death by asphyxia" (*ājô-jata i.e.* strangled to death). "So also in death by rapidly fatal affections, such as accute inflammation of the viscera from irritant poisons" (ṭbaêshô-jata = killed by malice, *i e.* by poisons, according to the Pehlavi commentator)—"provided they have no specific action on muscular tissue."[1]*

In the text it is stated, that "when the soul has flown away from the body, the Druj-Nasu rushes upon the corpse from the regions of the North in the shape of a raging fly." This is explained by the fact that flies are seen swarming about the body on the death of a man. In fact, physicians and surgeons, senior medical students and experienced nurses, working in any hospital, can make out, on entering a ward, the death of a patient recently taken place, or the approaching end of his life, by the sight of the swarming of the flies about his body. The powerful instinct of these flies, which enables them to perceive early the peculiar smell arising from the body, attracts them to the corpse, or to the body of very low vitality when a person is on the point of death.

In the text it is stated, that the Druj-Nasu is said to run away from the corpse in the shape of a raging fly, when the dog sees or eats up the corpse, or when

1 Guy's Forensic Medicine, p. 252. * I have inserted in this para. the words of the text in parentheses to show similarity between them and those occurring in it.

the vultures fly towards it. This is explained by the fact that when the dogs or vultures come to feed upon the corpse, the flies infesting it take flight at the sight of these dogs or vultures.

Section II.

On which part of the bedding[1] and covering does the Druj-Nasu rush with contagion, infection, and pollution ? (Vend. VII. 10.)

Then Ahura-Mazda answerd:—The Druj-Nasu rushes with contagion, infection, and pollution upon the uppermost part of the bedding and the innermost sheet covering the body. (Vend. VII. 11.)

The reason for this is that the uppermost part of the bed, on which the dying man lies, and the innermost sheet covering his body, come in direct contact with the body, and with the discharges and excretions passing from it. It is these discharges and excretions which soil the coverings of the bed and body, that contain the contagia or specific germs of the contagious or communicable diseases. Hence the uppermost part of the bedding and the innermost sheet covering the body of a man who has died of a contagious or infectious disease, are considered to be contagious and impure. To corroborate what I have stated I quote the following paras :—

"Further, the contagious elements often become attached to what are termed *fomites*, including articles of clothing, especially those of a woollen, silken, or cotton fabric; bedding and bedclothes; hair and various other articles; and they are thus propagated."[2]

"The special and distinctive phenomena of each disease are usually attended with special implication

1 *i.e.* the bedding on which a man has died.

2 F. T. Roberts' Medicine, p. 96.

of some part of the body, and it is especially these parts which contain the contagia. In these parts there is frequently rapid growth, and if the parts are on the surface, frequent detachment. The pus and epidermis of smallpox ; the epidermis and the mouth and throat epithelium of scarlet fever ; the skin and bronchial secretions of measles ; the stools containing the discharged detritus of Peyer's glands in typhoid fever ; the discharges of cholera ; the discharges and eruptions of syphilis, glanders, farcy, and malignant pustule, are instances of this. In typhus fever the skin is greatly affected, and it is generally supposed that it is from the skin that the virus spreads, since this disorder is so easily carried by clothes ; the same is the case with plague. In fact, those parts of the body which are the breeding-places of the contagious particles give off the poison in greatest amount. The portions of the body thus thrown off and containing the contagia may then pass into air, or find their way into water or food, and in this way be introduced by breathing, drinking, or eating, or through broken surfaces of the body." [1]

"In each special disease the contagion multiplies chiefly in those tissues—the mucous and epithelial—which are more especially subject to its action, and the infection is cast off from the body in large part with the secretions of these tissues." [2]

"In other cases the contagion leaves the body in the excretions of the bowels or possibly of the kidneys." [3]

The Druj-Nasu alluded to in the text is nothing more than the contagion or specific germ of a contagious or infectious disease. In support of this statement I quote the following paras :—

"The germ theory, then, assumes that the contagia are microscopic living particles organised in structure

1 E.A. Parkes' Hygiene, p. 148. 2 L.C. Parkes' Hygiene, p. 380. 3 Ib., p. 381.

and for the most part capable of independent life both within and without the animal body. These organic particles are believed to form part of that large class the *schizomycetes*, which embraces the lowest and least developed forms of organic life in the animal kingdom. To this class belong the bacteria, bacilli, micrococci, spirilla, vibrios, &c."[1]

"The microbial origin of some of the communicable diseases may be considered to be established beyond doubt, and this fact is a strong argument in favour of the remainder—in which no such connection has as yet been positively traced—being causally dependent upon specific micro-organisms"[2]

The authors of the Vendîdâd have regarded all fatal diseases as contagious, infectious, or communicable diseases: for, we are not sure if there were sufficient means in their age to distinguish a contagious or infectious disease from a non-contagious or non-infectious disease. But even if such means existed at that time, it was not considered safe by them to leave the matter to the discretion of the mass, hence the general impression of regarding all the fatal diseases as contagious or infectious. Even in the present advanced stage of medical science, doctors often differ from one another in deciding whether a particular disease is contagious or infectious. The doctors of one country would believe that a certain disease is contagious or infectious, while the doctors of another country would not believe in the contagious or infectious nature of that disease. Hence they often meet in an international congress to decide whether that particular disease is contagious or not. The arguments of both the parties are listened to and carefully weighed by the congress before they decide on its contagious or non-contagious nature. When so much difficulty is experienced by the doctors of the present age to decide

1 L. C. Parkes' Hygiene, p. 379. 2 Ib., p. 385.

on the contagious or non-contagious character of a particular disease, in spite of the rapid progress the modern medical science has made, one can easily consider the difficulties of the authors of the Vendîdâd for deciding on the contagiousness of a particular disease. Before concluding this section, I think it advisable to quote the opinion of the late Professor Darmesteter on the subject treated of in this section. "Ce qui distingue la conception Zoroastrienne de la conception européene, c'est que nous ne nous occupons d'isoler et de détriure l' élément mort qu'en case de maladie dit infectieuse : dans le Zoroastrisme la mort est tojours infectieuse et contagieuse." (Le Zend Avestâ ii. p. xii.) †

What distinguishes the Zoroastrian conception from European conception is this, that we occupy ourselves in isolating and destroying the dead element only in the case of infectious diseases : in Zoroastrianism death is always infectious and contagious.

Section III.

How many persons become impure by contact when a person or a dog dies suddenly in an assembly ?

If men are sitting together in the same place on a mat or on a carpet, and should there be two other men, or five, or fifty, or hundred (men), (sitting) near it with women, (and) if one of these persons should die, how far does the Druj-Nasu rush upon (these) persons with contagiousness, infection, and pollution ?

(Vend. v. 27th., and vii. 6.)

Then Ahura Mazda answered :—O Spitama Zarathurstra ! verily, the Druj-Nasu rushes forth—

If (the dead one) be a priest, as she rushes upto the eleventh, she defiles the tenth.

† Iranian Essays, by J. J. Modi. Part III, p. 67.

If (the dead one) be a warrior, as she rushes upto the tenth, she defiles the ninth.

If (the dead one) be a peasant, as she rushes upto the ninth, she defiles the eighth.

If (the dead one) be a shepherd's dog, as she rushes upto the eighth, she defiles the seventh.

If (the dead one) be a street-dog, as she rushes upto the seventh, she defiles the sixth.

If (the dead one) be a corpse-devouring dog, as she rushes upto the sixth, she defiles the fifth. &c., &c.
(Vend. v. 28–34., and vii. 7–9.)

I do not quite understand the reason, why the number of persons contaminated by coming in contact with a dead man or dog, should vary with the rank of the dead man and with the species of the dog. Though I try to give my own reason in the following lines, I shall welcome a more cogent reason than this from any of the readers of this book.

It appears that at the time when the Vendîdâd was written, the holy priest was regarded as the most influential and important personage of the community on account of his piety, learning, and various important services rendered by him to the community. Next in rank was held the warrior who fought for his country. Next to him was placed the peasant or labourer. It is natural and reasonable that if a man of distinguished position die suddenly, he would attract more sympathizers and mourners than a man of low rank, known only to a few members of the community, for example, his friends and relatives. Thus, more persons would come into contact with the corpse of a righteous and influential personage out of sympathy and respect for him than would come into contact with that of a labourer. Hence more persons are said to become contagious when the righteous personage dies suddenly in a meeting than when the warrior dies. For the same reason, more persons

become contagious when the warrior dies than when the peasant dies and so on.[1]

CHAPTER V.

How shall the Mazdayasnians dispose of the corpse in winter if they find it impossible to take it to the Dakhma[2]?

O Holy Creator of the material regions! If the summer is passed, "then in winter how should they act, they who are Mazdayasnians? Then said Ahuramazda: "[3]—'They shall erect three *katas* in every house, in every street, for this (person) when dead.'

(Vend. v. 10.)

O Creator! How large shall be this *kata*[4] for this (person) when dead? Then said Ahuramazda:—(His) propped up head shall not touch it, neither shall it be longer than (his) legs, nor wider than (his) hands: verily, this is the lawful kata for this (person) when dead. (Vend v. 11.)

"There shall they deposit his lifeless body for two nights, or three nights, or a month long,"[5] until the birds fly forth, the plants grow up, the floods run off, (and) the wind dry up the ground. (Vend. v. 12.)

Then as soon as the birds fly forth, the plants shoot out, the floods run off, (and) the wind dries up the

1 In the case of a priest, Ervad Jivanji J. Modi thinks that the reason can be, perhaps, found in the after-effect. A priest is a powerful member of the community, who preaches isolation from contagion, and, as yaozdâthragar (purifier), disinfects the "contacts" by purificatory baths. When he dies, a useful member who preached and practised isolation from contagion is lost to the community. Hence, after his death there is a greater chance for the spread of contagion.

2 *i. e.* Tower of Silence. 3 Haug's Essays, p. 324.

4 In the text in the plural number. 5 Haug's Essays, p. 325.

ground, the Mazdayasnians shall then set this body viewing the sun. (Vend. v. 13.)

"If the Mazdayasnians should not set this body viewing the sun for the length of a year, thou shalt order as much punishment as for murdering a righteous man,"[1] until putrid substances have been got rid of, until the Dakhmas have been cleansed, until exudations[2] (from the corpse) have been cleared off, and until the birds have been gorged. (Vend. v. 14.)

The injunctions given in the above mentioned sections, *viz.*, that three *Katas*[3] shall be erected for the dead in every house or street, and that the corpse shall be deposited there for two or three nights or longer, are to be carried out only when the winter is so severe, that the road, by which the corpse is to be carried, is impassable on account of its being blocked up by snow and rain water. They are enjoined on the Mazdayasnians living in very cold countries only when the winter is very severe, for, the Mazdayasnians are ordered to take away the corpse to the Tower of Silence, as soon as the road becomes passable when the snow melts away and the collected water drains away; as soon as the birds begin to fly, so that the vultures may feed on the corpse; and as soon as the sun becomes visible, so that the corpse may be exposed to his rays. These injunctions are not enjoined very prudently on the Mazdayasnians living in tropical countries where the winter is not so severe as that described above.

If the sun, being enveloped in clouds, remains invisible by day in severe winter, and if men foolishly attempt to take away the corpse to the Tower of Silence, it is highly probable that they may be overtaken on the road by a heavy fall of rain, snow, or hail, before they reach their destination, or before they return home.

1 Haug's Essays, p. 325. 2 Ib. *vide* foot-note, p. 325.

3 A *kata* means "the place where the corpse is laid temporarily, till it be carried to the Dakhma." (Kângâ Dict. p. 123.)

They then expose themselves and the corpse unnecessarily to heavy rain and to other natural difficulties which they may be unable to overcome, and which may endanger their lives.

Moreover, these injunctions very well stand the scientific tests, for in a very severe winter, the temperature of the air may fall to 32°F or even below that point, at which temperature putrefaction is entirely checked, hence the injunction that the corpse may be kept in the house, if necessary, for two or three nights or more. In the winter less severe than that described above, the temperature of the air may vary from 32°F to 60°F, at which range of temperature putrefaction is carried on very slowly, and is not so rapid as it is when the range of temperature varies from 70°F to 100°F, which is the most favourable range of temperature for decomposition.† Again, it is wisely enjoined that the space assigned for the *Kata* (open grave) should not be larger than what is sufficient for the size of the corpse, for, the less is the space contaminated by it, the more beneficial it is for the welfare of human beings, for, if more space is allotted than what is necessary for the purpose, more trouble they will have to undergo to purify the soil after the removal of the corpse from the house. Further it is very wisely ordered that the corpse should be exposed to the burning rays of the sun, for, they remove moisture from the air in contact with it and thus assist in retarding decomposition in it before it is devoured up by vultures.‡ Again, it is these burning rays of the sun that consume the soft parts that have not been devoured up by the vultures.

The Mazdayasnians are wisely enjoined not to remove the corpse from the house, until the rain ceases and the collected water drains away ; for, if they remove it from the house, and being overtaken

† *Vide* Guy's Forensic Medicine p. 258. ‡ Ib. p. 258.

by heavy rain on the road after going a short distance, bring it back to the house after drenching it with rain-water, they cause it to putrefy more rapidly: for, according to Dr. Guy, "bodies which have remained sometime in the water, and are then exposed to the air, putrefy more rapidly than those that have been immersed."[1]

The object of ordering three *Katas* to be made is this, that one *kata* is assigned for the male, another for the female, and a third for the child.

These *katas* are ordered to be made in every big house, and in the case of small houses in every street, for depositing the corpse there for two or three nights or longer in severe winter. Ervad J. J. Modi observes the following about the *kata* :—

"It appears from the Avesta that in ancient Persia every house was provided with a separate apartment for placing the dead body before its removal to the Tower of Silence. Again every street had a house for the common use of all the residents of the street. The inmates of the houses in the street which had not special convenient apartments for placing the dead bodies, carried them to this house set apart for the common use of all the residents of the street."[2]

If the Mazdayasnians do not expose the corpse to the rays of the sun in the course of a year, they are sentenced to undergo the punishment inflicted on one who injures a pious man. For it is useless to expose the corpse to the sun after one year, because all its soft parts have been completely destroyed by putrefaction at the end of a year, and have done their worst by infecting the ground by that time.

1 Guy's Forensic Medicine, p. 258.

2 The Funeral Ceremonies of the Parsis, their Origin and Explanation, by J. J. Modi, B.A. 1892. pp. 7–8.

Section I.

If a dog or a man die in this house which (is) of a worshipper of Mazda on the approach of darkness by day-time, or (when) it is raining, or snowing, or blowing, or (when) invasion by animals and besieging by men take place, what shall the Mazdayasnians do ?

(Vend. VIII. 4.)

Then Ahuramazda answered :—In this house which (is) of the worshipper of Mazda, (they shall) first (select) the cleanest and driest ground, and those paths (where) domestic and draught animals, the fire of Ahuramazda, the piously spread Barsam, and the pious man pass least. (Vend. VIII. 5.)

O Creator ! How far from fire ? How far from water ? How far from spread-up Barsam ? How far from pious men ? (Vend. VIII. 6.)

Then Ahuramazda answered :—Thirty paces from the fire ; thirty paces from the water ; thirty paces from the spread-up Barsam; and three paces from the pious man. (Vend. VIII. 7.)

There in that ground the Mazdayasnians shall dig a pit up to the middle of the leg in the hard ground, up-to the waist of a man in the soft ground, they shall throw ashes or earth into that spot, or they shall throw into it from the surface[1] dust of bricks, or of stone, or of dry earth. (Vend. VIII 8.)

There shall they deposit his lifeless body for two nights, or three nights, or a month long, until the birds fly forth, the trees grow up, the floods run off, (and until) the wind dry up the ground.

(Vend. VIII. 9.)

And when the birds fly forth, the plants grow up, the floods run off, and the wind dries up the

1 *Uparât naemât* literally means from the upper side.

ground, the Mazdayasnians shall then pull down the part of the house which is fit to be pulled down, (and) two men amongst the young and most powerful shall carry it,[1] and place it naked and stripped off cloths on the ground made of clay-bricks, stone, or mortar, and supported[2] on pillars, whence corpse-eating dogs or corpse-eating birds most assuredly see it.

(Vend. VIII. 10.)

It appears from the text that the house referred to was not a small ordinary house, but a big house with a large compound, in which were built sheds for keeping domestic animals, wells for having water for drinking and domestic purposes, and for ceremonial and agricultural purposes, and three small outhouses ; one called the *Dâdgâh*, used for keeping the sacred fire, the Barsom, &c., and for performing religious ceremonies ; another named the *Dashtânistân*[3] for the use of menstruating women ; and a third, by name, the Zadmarg,[4] for keeping the corpse temporarily, until it can be taken to the Dakhma.

The corpse is ordered to be kept in the house when the relatives of the deceased find it hard and impossible to take it away to the Dakhma, while it is raining, snowing, or blowing hard ; or when the day is too dark for them to see anything distinctly by daylight ; or when the house, village, or town is invaded or besieged by an enemy, or attacked by beasts of prey, such as lions, tigers, &c.; otherwise, those who attempt to take away the corpse to the Dakhma under any of these circumstances, expose themselves to the

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1 Standing for the lifeless body of the 9th para.

2 *Upa-skanbem* or *upa-skembem* I prefer to adopt *Upa-skembem* given in the foot-note of the Vendîdâd edited by Ervad Edalji K. Antia, *upa*==on or upon, (Kângâ's Dict. p. 99,) and *skemba*=*pillar*, from *skemb*, संस्कम्भ, to support, (Kângâ's Dict. p. 532) hence *upa-skembem* means supported on pillars.

3 Vide S. B. E. vol. iv. p. 185. 4 Ib. p. 53.

inclemency of the bad weather, and are liable to be attacked with any of the diseases brought on by exposure to cold and wet; or they are liable to miss the proper path leading to the Dakhma when it is pitch-dark; or they run the risk of being attacked by the enemy or beasts of prey and of losing their lives.

The place where the dead body is to be kept temporarily in the house is ordered to be the driest and cleanest, for putrefaction is delayed in a dry and clean place on account of the absence of moisture and dirt; moisture being one of the potent factors of putrefaction, and dirt being the hot-bed of microbes which are the chief agents in causing putrefaction. This place should be such that sheep and cattle pass through least frequently, so that they may not run the risk of taking the contagion, if the disease of which the dog or the man died, was contagious or infectious. It is also ordered to be selected at least at a distance of thirty paces from a Dâdgâh, where the Homa, the *Barsam*, the Havanim &c., are kept, so that these things may not run the risk of being contaminated by contact.

The *Katas* (open graves), that are alluded to on the preceding pages, are further described here. They are ordered to be dug knee-deep, if the ground is hard, and half the height of a man, if it be soft: for, firstly, it is easier to dig a soft ground than a hard one; secondly, the soft ground being more porous than the hard one is more permeable to liquids, and "lets contagion through more easily"[1]; and thirdly, "the deeper the grave, *caeteris paribus*,... the slower the putrefaction."[2] Ashes, earth, and dust of bricks and of stone are thrown into these graves, for, firstly, these substances act as disinfectants to a small extent, and secondly, they prevent the corpse from being in contact with the soil, and thus retard putrefaction in it; for

1 S. B. E. Vol. IV. *vide* foot-note, p. 97.
2 Guy's Forensic Medicine, p. 257.

putrefaction " is rapid when the body is in contact with the soil. " [1]

The Mazdayasnians are ordered to pull down that part of the house which is fit to be pulled down before removing the corpse from the house, for, according to the Pehlavi commentator, " the master and mistress of the house are carried away through a breach (made in the wall of the house); others through the door."[2] This may be one of the reasons, for it is said that some of the tribes inhabiting Central Asia still entertain this belief. But the more valid reasons for removing the part of the house that can be easily removed (for example, a wall made of bamboo-chips or of dry leaves of a cocoanut or palm tree), are to allow sufficient space to the corpse-bearers to enable them to remove the corpse with ease in case the house has a small gate, and to allow air and light to enter freely the room, where the corpse was kept very long, so that the current of air may carry off any septic matter floating in the air of the room, and the bright rays of the sun may destroy the septic matter lying on the ground.

Two young men among the most powerful are ordered to carry the corpse, so that they may be able to bear its weight. They are also enjoined to place it on an elevated spot, so that the corpse-eating dogs and vultures may see it easily, and the rays of the sun may fall directly on it when it is bared off clothes. The site on which it is to be placed is ordered to be supported on pillars, so that the corpse may not contaminate the earth. It is also enjoined to be made of plaster, stone, bricks, &c., for, as these substances are impermeable to liquids, they do not allow any liquid containing putrid organic matter to soak through the soil and thus to defile it.

1 Guy's Forensic Medicine, p. 259.

2 S. B. E. Vol. IV., vide foot-note p. 97.

Section II.

If a dog or a man die in a hut of wood or under a thatched roof, what shall the Mazdayasnians do? (Vend. VIII. 1.)

Then Ahura-Mazda answered:—"They shall search for a Dakhma, they shall look for a Dakhma all around. If they find it easier to remove"[1] this dead (body), they shall take away the dead (body), they shall let the house stand there, and shall perfume this house with Urvâsna, or Vohû-gaona, or Vohû-kereti, or Hadhâ-naêpata, or any of the most fragrant plants. If they find it easier to remove the house, they shall take away the house, they shall let the dead (body) lie there, and shall perfume the house with Urvâsna, or Vohû-gaona, or Vohú-kereti, or Hadhâ-naêpata, or any of the most sweet-smelling plants.

(Vend. VIII. 2–3.)

From the text it appears that the house which is made of such articles as can be easily detached, is either a hut, or a cottage, or a tent, and is one which is situated in a forest or wood far off from an inhabited place, such as a town or a village, because the Mazdayasnians are ordered to search for a Dakhma which they may find some miles off. If they can succeed in finding out one, they are ordered to remove the corpse to the Dakhma, to preserve the hut or cottage, and to fumigate it in order to purify the air by destroying the foul odour of putrefaction and its germs—in case the corpse had begun to putrefy before it was removed to the Dakhma—and by killing the germs of an infectious disease—if the corpse was of a person suffering from such a disease. If the Mazdayasnians cannot succeed in finding out the Dakhma at a distance of a few miles from the hut, they

1 S. B. E. Vol. IV., p. 95.

are ordered to leave the corpse there, to remove the materials of which the hut or cottage is made, and then to fumigate them with the intention of destroying putrefactive and pathogenic germs lying in contact with them.

Section III.

How shall the *corpse* be *disposed of* at a *place* where there is *no Dakhma ?*

O Creator of the material regions ! Whither shall we carry the bodies of the dead ? O Ahura Mazda ! where shall we place (them)? (Vend. vi. 44.)

Then Ahura Mazda said :—O Spitama Zarathustra ! On the most elevated places, whence the corpse-eating dogs or the corpse-eating birds can most certainly see it. (Vend. vi. 45.)

Then the Mazdayasnians shall fasten the corpse by its own feet and its own hair with anything made of iron, stone, or lead ; lest the corpse-eating dogs or the corpse-eating birds carry the bones to water and trees. (Vend. vi. 46.)

The corpse is ordered to be taken to the most elevated place for the four following reasons :—

(1) That the corpse-eating dogs and birds, such as vultures, may see the corpse better *there* than in a deep valley.

(2) That the corpse is more exposed *there* than in a deep valley or on a plain to the burning rays of the sun which completely consume its soft parts so firmly adherent to the bones that the vultures and dogs find it somewhat difficult to detach them from the bones.

(3) That putrefaction goes on more slowly in dry, elevated situations than in low swampy grounds,[1] the object being to delay the process of putrefaction before the corpse is eaten up by the dogs and vultures.

1 *Vide* Guy's Forensic Medicine, p. 259.

(4) That the most elevated place is, as a rule, far away from the habitations of men.

The corpse is ordered to be fastened to stone or a rod of iron or lead, because these substances, being denser than wood, are less liable to be contaminated with putrid matter, and, being stronger than wood, are less liable to give way to any force exerted by the dogs and vultures while feeding on the corpse or while trying to pull it away from its place.

The corpse is ordered to be fastened by the feet with hair, for the feet consist mainly of bones which resist putrefaction longer than any other part of the body. It is ordered to be fastened with the hair of the head for the following reasons, viz. :—

(1) That hair resists putrefaction a long time; (2) that it being pliant is used as a string for fixing the corpse; (3) and that it is tough enough to resist some dragging force.

The object of fixing the corpse, as stated in the text, is to prevent the vultures and dogs from carrying *fresh bones*[1] to water which may be polluted by the shreds adherent to them.

Section IV.

How shall the *bones* of a *corpse* be *disposed of* after the *destruction* of its *soft parts* by the dog, the vulture, and the sun ?

The Mazdayasnians are ordered for the disposal of the bones of a corpse to make a receptacle from the upper part of which no rain-water can enter it and to place it out of the reach of the dog, of the fox, and of the wolf. They shall make it, if they can afford it, of stone, plaster or earth; if they cannot afford it, they shall lay down the bones on the ground on their

1 *i. e.*, bones to which soft parts are adherent in the form of shreds.

carpet or sheet, "clothed with the light of heaven, and beholding the sun."[1] (*Vide* Vend. VI. 49-51.)

The receptacle of bones or ossuary (astôdân) is ordered to be prepared so that all the bones may be deposited in it and thus prevented from being scattered about. It is ordered to be placed out of the reach of the dog, fox and wolf, so that they may not break it by jumping on it and overturning it, or by throwing it on the ground. It is ordered to be made such that no rain-water may enter it from its top, and thus putrefy any minute soft matter which may have remained adherent to the bones. Further, it is ordered to be made of stone, plaster, &c., according to the pecuniary circumstances of a dead man and his relatives who are thus indirectly forbidden not to incur debt. It is ordered to be exposed to the rays of the sun, so that the particles of soft parts that have escaped destruction may be destroyed by them.

Section. V.

On the *punishment* to be *inflicted* on a *person throwing away carelessly* a *fresh bone* and its *justification.*

The punishment dealt out to a person who carelessly throws away the bone of a dead dog or of a dead man, from which grease or marrow oozes out, varies with the size of the bone. For example, the punishment that is dealt out to a person who throws away carelessly a fresh bone as large as a man's skull is twenty times as heavy as that inflicted on a person who throws away carelessly a fresh bone as large as the top-joint of the little finger. (Vide Vend. vi., 10-25.)

The reason why a person is punished for throwing away carelessly the fresh bone of a dead dog or man, as long as grease or marrow oozes out from it, is that it becomes the source of defiling anything coming in

1 S. B. E. Vol. IV., p. 75.

contact with it; and the larger the bone, the greater the defilement, and consequently, the heavier the penalty one has to pay for it.

CHAPTER VI.

On the *condemnation* of *burying* a *dead body* and of *building graves*.

I, who am Ahura Mazda, created the beautiful Haraqaiti as the tenth best of regions and cities; thereupon, as an opposition to it, Angra Mainyu, the deadly, committed the evil, inexpiable deeds of burying the dead. (Vend. I. 13.)

The meaning of this para. is that men guided by Ahura Mazda or rather by Spenta Mainyu, *i.e.* by the Beneficent Spirit, built the beautiful Haraqaiti as the tenth best of regions and cities; thereupon, as an opposition to it, men misguided by the Evil Spirit, committed the sin of burying the dead, for which there is no atonement. One can easily infer from this that the burial of the dead is so strictly prohibited by the Mazdayasnian religion that it is not only regarded as a sin, but as an inexpiable sin.

For the Mazdayasnian religion, O Spitama Zarathustra!.....takes away burying a corpse. (Vend. III., 41.)

This means that the Mazdayasnian religion condemns the burying of a corpse.

Which is the second most displeased (spot) of this earth? Then said Ahura Mazda:—Really that wherein "dead dogs and dead men are most lying buried."[1] (Vend. III., 8.)

The reason why the Earth is most displeased is quite clear, for that piece of land, instead of being cultivated for the production of cereals, vegetables,

1 Haug's Essays, p. 316.

fruits, &c., which serve as food for men and cattle, and thus become one of the sources of maintaining their lives, is utilised for the purpose which becomes the fertile source of diseases to which human beings and cattle fall victim.

Which is the third most displeased (spot) of this earth? Then said Ahuramazda :—Really that wherein "vaulted tombs are most constructed, in which dead men are deposited"[1] (Vend III., 9) The Earth is displeased for the reason stated above.

That Jarir begged of Aredvisûra to grant his wish to defeat Pesho-chingh, the corpse-burier, is evident from the following para. :—

Then he (Jarir) begged of her :—O good, pure and most beneficent Aredvisûra! gratify this wish of mine, (viz.), that I shall defeat* Peshochingh, the corpse burier,.....in the battles in this world.

(Avân Yast., 113.)

That the person who buries a corpse is cursed is evident from the following :—

May evil come to...the corpse-burier! (Yas. LXV. 8.)

Section I.

On *demolishing tombs* and *sepulchres.*

O Holy Creator of the material regions! Who first rejoices this earth with the greatest joy? Then said Ahura Mazda :—Indeed, he (who) most digs up that (ground) "where both dead dogs and dead men are lying buried."[2] (Vend. III., 12.)

O Holy Creator of the material regions! "Who secondly rejoices this earth with the greatest joy?"[3] Then said Ahura Mazda :—Indeed, he (who) "most demolishes the vaulted tombs in which dead men are deposited."[4] (Vend. III., 13.)

1, 2, 3 and 4 Haug's Essays, p. 317.

* Literally, become the conqueror of.

Enjoin every one of the material world, O Spitama Zarathustra ! to level these tombs to the ground.

(Vend. VII., 50.)

Whoever levels to the ground tombs and sepulchres is highly rewarded, for not only are his sins remitted as they would be by a *Patet*, but also he is blessed by Ahura Mazda, the sun, the moon, and the stars.

(*Vide* Vend. VII, 51-52.)

The object of rewarding so handsomely a person who demolishes tombs and sepulchres is this that he thus practically makes the ground fit for use once more, which lay useless for cultivation and habitation for a long period.

Section II.

On *tiny insects* and *germs produced* in *tombs* and *sepulchres*.

O Spitama Zarathustra ! In these tombs which are built elevated on this ground, and in which dead bodies are deposited, there is the Daêva, there is the Daêva-worshipper, there is the gathering of Daêvas, there is the rushing of the Daêvas, there the Daêvas rush together by fifties and hundreds, by hundreds and thousands, by thousands and ten thousands, and by ten thousands and myriads. (Vend. VII., 56.)

O Spitama Zarathustra ! Just as you human beings in this material world cook delicious food and feed on cooked meat, so these Daêvas eat and void filth[1] in these sepulchres, etc. (Vend. VII., 57.)

The Daêvas referred to above are (I) the myriads of minute insects and worms which feed on the putrefying flesh of the dead body buried in the ground (II) and the microscopic organisms, called the germs, which are absolutely necessary for the production of putrefaction. It is they which first attack dead organic matter and partially feed on it, and thus prepare the way for putrefaction.

1 S. B. E. Vol. IV., p. 90; copulate (Kângâ's Dict., p. 488.)

Section III.

On the *diseases resulting* from *dead bodies buried* in *tombs*.

For as long as this stench emanates (from the tomb), so long it is the enjoyment of the Daêvas. In these tombs gather together filthiness, disease, hot fever, *naêza*,[1] ague, rigors, and numerous bones and hair. The (dead) persons in these graves prove most deadly after sun-set. (Vend. VII. 58.)

As long as foul smell emanates from the graves, so long there exists some putrid substance on which insects and worms feed. Only bones and hair are found after a long time in these graves, for they resist putrefaction longest. The buried corpses prove most deadly after sun-set, because the low forms of life preying on them flourish most after sun-set. As long as decomposition goes on, so long there is filthiness, so long emanate from the soil fœtid and poisonous gases resulting from decomposition, such as, carbon dioxide, carburetted hydrogen, hydrogen sulphide, &c., which, if inhaled by men continuously for a long time, prove highly injurious to them, and some of which may render water percolating through the soil impure when it is impregnated with them. The graves give rise to diseases by polluting the drinking water, which passes through the subsoil in contact with corpses, and which thus contains nitrites and nitrates. That the water holding sulphuretted hydrogen, salts, and animal organic matter in solution, if drunk, gives rise to diarrhœa, is evident from the following quotations:—

"Water containing much hydrogen sulphide will give rise to diarrhœa, especially if organic matter be also present."[2]

"Calcium nitrate waters also produce diarrhœa."[3]

1 A kind of disease. 2 E. A. Parkes' Hygiene p. 41. 3 Ib., p. 41.

"The opinion is very widely diffused that dissolved and putrescent animal organic matter, to the amount of 3 to 10 grains per gallon, may produce diarrhœa."[1]

"The animal organic matter derived from graveyards appears to be especially hurtful; here also ammonium and calcium nitrites and nitrates may be present."[2]

That water passing through a cemetery gives rise to dysentery is evident from the following sentence :—

"In time of war this cause has often been present, and the great loss by dysentery in the Peninsula, at Ciudad Rodrigo, was partly attributed by Sir J. M'Grigor to the use of water passing through a cemetery where nearly 20,000 bodies had been *hastily interred*."[3]

That what is stated in the para. of the text quoted above is partly echoed by Dr. Edmund Parkes is evident from the following paras :—

"After death the buried body returns to its elements, and gradually, and often by the means of other forms of life which prey on it, a large amount of it forms carbon dioxide, ammonia, carburetted hydrogen and hydrogen sulphide, nitrous and nitric acids, and various more complex gaseous products, many of which are very fœtid, but which, however, are eventually all oxidised into the simpler combinations. The non-volatile substances, the salts, become constituents of the soil, pass into plants, or are carried away into the water percolating through the ground. The hardest parts, the bones, etc., remain in some soils for many centuries, and even for long periods retain a portion of their animal constituents."[4]

"Burying in the ground appears certainly the most insanitary plan of the three methods.[5] The air

1 E. A. Parkes' Hygiene, p. 40. 2 Ib., p. 41. 3 Ib., p. 43. 4 Ib , p. 459.
5 (*viz.*, burial in the land and at sea, and burning.)

over cemeteries is constantly contaminated, and water (which may be used for drinking) is often highly impure. Hence in the vicinity of graveyards two dangers to the population arise, and in addition from time to time, the disturbance of an old graveyard has given rise to disease. It is a matter of notoriety that the vicinity of graveyards is unhealthy."[1]

"The decomposition of bodies gives rise to very large amount of carbon dioxide.....Ammonia and an offensive putrid vapour are also given off. The air of most cemetries is richer in CO_2 (·7 to ·9 per 1000, Ramon da Luna), and the organic matter is perceptibly large when tested by potassium permanganate. In vaults, the air contains much CO_2, carbonate or sulphide of ammonium, nitrogen, hydrogen sulphide, and organic matter (Pellieux). Waller Lewes found little SH_2 or CH_4 or cyanogen, or hydrogen phosphide. In his experiments the gas always extinguished flame."[2]

That the disturbance of an old cemetery sometimes proves fatal to those who dig up its ground, especially when it contains the germs of an infectious disease, is evident from the following :—

"Even after the lapse of several hundred years microzymes or disease producing organisms, were found to be alive and as active as ever and became the cause of death to hundreds of workmen engaged in digging up ground which had been a burial place of some who had died of the plague of Modena 300 years before. In fact the plague was started anew and so killed thousands more." (Scientific American 1888.)[3]

1 E. A. Parkes' Hygiene, p. 460. 2 Ib., p. 121.

3 J. J. Modi's Iranian Essays, Part ii., p. 66.

Section IV.

When does the *burial ground become clean* again?

O Creator! at what length of time does the ground become (clean) as before if the corpse of the dead man has lain buried in the ground? (Vend. VII., 47.)

Then said Ahura Mazda:—O Spitama Zarathustra! after fifty years the ground becomes (clean) as before, if the corpse of the dead man has lain buried in the ground. (Vend VII. 48.)

O Creator! at what length of time does the ground become (clean) as before, if the corpse of the dead man has been deposited in a tomb? (Vend VII., 49.)

Then said Ahura Mazda:—O Spitama Zarathustra! not until this (corpse) has been reduced to dust. (Vend VII., 50.)

One can infer from these paras. that the body buried in a tomb or placed in a coffin is said to take a longer time to be consumed than that buried without the tomb or coffin. This statement is easily verified, for "the more completely the body is defended from the air by clothes or coffin, the slower the putrefaction,"[1] and the longer it is before the earth becomes cleansed of the products of putrefaction. The time mentioned in the text that the soil takes to become purified is definite, namely, fifty years after the burial of the corpse without a coffin or tomb. This statement is to a certain extent corroborated by Dr. E. A Parkes who says.—"In some soils the decomposition of bodies is very slow, and it is many years before the risk of impurities passing into air and water is removed."[2]

Again when the corpse is buried in a tomb, it is completely shut off on all sides from air and light, hence it takes a longer time to be reduced to dust

1 Guy's Forensic Medicine, p. 259. 2 E. A. Parkes' Hygiene, p. 459.

on account of the slow process of putrefaction, consequently the soil on which the tomb is erected takes a much longer time to get rid of the products of putrefaction and become clean.

Section V.

On the *punishment* to be *inflicted* if the *buried bodies are not unearthed within two years.*

"Who first rejoices this Earth with the greatest joy?"[1] Then said Ahura Mazda:—Indeed he (who) most digs up that (ground) "where both dead dogs and dead men are lying buried."[2] (Vend. III., 12.)

The Earth is said to rejoice when the dead men and dogs are extracted from the ground, for it is further prevented from being defiled. The Mazdayasnians are not only forbidden to bury a dead body, but are strictly enjoined to unearth it as early as possible. The punishment dealt out to those who violate this injunction varies with the time it is allowed to remain buried, for example, the punishment that is inflicted on those who do not unearth it after a year is double that inflicted on those who do not unearth it after six months (*vide* Vend. III 36-37); for it is found to be much more decomposed after a year than after six months; and the more it is decomposed, the more it defiles the soil and the water permeating the soil by the products of decomposition. The person who does not unearth it within two years is said to commit an inexpiable sin (*vide* Vend. III., 38-39), for all its soft parts are found destroyed by putrefaction at the end of two years, and the products of decomposition have already completely polluted the soil and the water permeating it. A learned Mazdayasnian, who, in spite of the knowledge of this religious mandate of unearthing the buried body within two years, intentionally violates it, is said to commit an inexpiable sin. (*Vide* Vend. III., 40.)

1 and 2 Haug's Essays, p. 317.

Section VI.

"How *long* shall the *piece of ground lie fallow* whereon dogs or men have died ?"

"Ahura Mazda answered :—'A year long shall the piece of ground lie fallow whereon dogs or men have died, O holy Zarathustra ! (Vend. VI., 1.)

A year long shall no worshipper of Mazda sow or water that piece of ground whereon dogs or men have died.' "[1] (Vend. VI., 2.)

The reasons why the Mazdayasnians are ordered not to cultivate the soil, whereon the carcass of a dog or the corpse of a man has lain for a long period, within one year after the death of the dog or man are, (1) that dead matter lying on the soil is not entirely destroyed by putrefaction before the end of a year, and (2) that if the soil is watered before the completion of the year, that is, during the period while putrefaction is going on, putrid matter washed away by water is liable to contaminate the soil by penetrating it.

O Creator ! If the worshippers of Mazda want to make that ground fit for irrigation, to water it, to sow it, and to plough it, how shall they act, they who are the Mazdayasnians ? (Vend. VI., 6.)

Then said Ahura Mazda :—There they shall look on the ground for any bones, hair, excrement, urine, or blood. (Vend. VI., 7.)

The object of this mandate is that the soil ought to be free from any putrid substance, otherwise while sowing and watering it, any putrid substance that is left there may enter and defile it.

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1 S. B. E. Vol. IV., p. 67.

CHAPTER VII.

On the *impurity* of *water* that has *come* into *contact* with *nasu*.

" If a *worshipper of Mazda*, walking, or running, or riding, or driving, *come upon a corpse in a stream* of running water, what shall he do ? "[1]

Then Ahura Mazda answered :—Having taken off his shoes, (and) having put off his clothes, O Zarathustra ! he shall wait. O Zarathustra ! he shall go forward into the water ankle-deep, knee-deep, waist-deep, or of a man's height, till he can reach the dead body, (and) shall take it out of the water.

(Vend. vi., 27.)

O Creator ! If the dead body be in a high state of decomposition and putrefying, what shall the worshipper of Mazda do ? (Vend. vi., 28.)

Then Ahura Mazda answered :—" He shall draw out of the water as much of the corpse as he can grasp with both hands, and he shall lay it down on the dry ground ; no sin attaches to him for any bone, hair, grease,"[2] excrement, urine, or blood dropping back into the water. (Vend. vi., 29.)

If a Mazdayasnian sees a corpse floating in a stream of running water when he passes by it, he is ordered not to proceed on his way, but to stop there and remove it from water ; for, firstly, the longer it floats, the more rapidly it putrefies, being exposed to the air after being immersed ; and secondly, the longer it remains in water, the more it defiles it.

The reasons for ordering a Mazdayasnian to take off his shoes and put off his clothes before he enters the stream are, (1) that he may be able to swim efficiently, and (2) that he may not wet his shoes and

1 and 2 S. B. E. Vol. IV. p. 71.

clothes, and may not contaminate them by bringing them into contact with any putrid part of the corpse. He is ordered not to go to a greater distance in a stream than what is necessary for catching the corpse, lest he may be drowned by going into very deep water if he is not a good swimmer. If he finds the corpse decomposed and rotten, he is ordered to remove as much of it as he can, for if he endeavour to remove all the rotten matter, he is likely to exhaust his strength and run the risk of being drowned. He is ordered to lay the corpse on a dry ground after removing it from water, "for a dry absorbent soil retards, a moist one accelerates putrefaction."[1] Again he is not held responsible for any decomposed part of the corpse dropping back into the water while being removed, otherwise he would be compelled to dive as often as it drops back into the water, which would of necessity exhaust his strength too much to enable him to swim.

Section I.

How *far does* the *Druj-Nasu advance* with *corruption, pollution,* and *infection* in *stagnant* water, in *running* and *flowing* water, and in water *dribbling* from melting snow or hail?

Ahura Mazda answered:—"Six steps on each of the four sides"[2] in stagnant water, "three steps on each of the four sides"[3] in water dribbling from melting snow or hail, "three stops down the stream, nine steps up the stream, six steps across."[4] (*Vide* Vend. VI., 30-40.)

The stagnant water is said to be polluted over twice as much area as that of the water dribbling from melting snow and hail, as the former remains in closer contact with dead matter than the latter.

1 Guy's Forensic Medicine, p. 259.
2 S. B. E. Vol. IV., p. 71. 3 Ib., pp. 72–73. 4 Ib., p. 73.

The water flowing across the stream is said to be polluted over twice as much area as that of the water flowing down the stream, as the former remains longer in contact with dead matter than the latter. The water flowing up the stream is said to be polluted over thrice as much area as that of the water flowing down the stream, as the former remains much longer in contact with the dead matter than the latter.

Section II.

How *long* shall *stagnant, dribbling* and *running water* that is *polluted* be *considered unclean?*

As long as the corpse has not been taken out of the stagnant water, out of the water dribbling from the melting snow and hail, and out of the running and flowing water, so long shall that water be unclean and impotable. The Mazdayasnians shall therefore take the corpse out of the stagnant water, out of the water dribbling from the melting snow and hail, and out of the running and flowing stream, and lay it down on the dry ground. (*Vide* Vend. VI., 30-40.)

As long as the corpse remains in water, it is the source of polluting it, hence it is ordered to be removed from it, and to be placed on the dry ground, for the dry soil retards putrefaction.

Section III.

What *quantity* of *polluted water* shall be *rejected* before it *becomes potable?*

The Mazdayasnians shall draw off the half, or the third, or the fourth, or the fifth part of stagnant water or of the water in a well, "according as they are able or not; and after the corpse has been taken out and the water has been drawn off, the rest of the water

is clean, and both cattle and men may drink of it at their pleasure as before."[1] (*Vide* Vend. VI., 32 and 35.)

As regards snow or hail, the water is clean, after the corpse has been taken out, and the snow or hail has melted away. As regards the water of a running stream, it becomes clean after waves have flowed thrice over it after the removal of the corpse.

(*Vide* Vend. VI., 38-41.)

In all cases the corpse is first ordered to be removed from water, whether it is stagnant, dribbling, melting, or running, for the longer it remains in it, the more it defiles it, and the more it renders it injurious. As the stagnant water becomes polluted much more easily and in a larger quantity than snow-water or running water, a much larger quantity of the former is ordered to be rejected than that of the latter, before the rest of the water becomes potable.

The quantity of water to be rejected varies with the size and capacity of a well, a pond, &c., and with the capability of those who draw it off. For example, water in a small shallow well is far less than that in a large deep well. Again, the quantity of water is far greater in a large tank than in a well, hence it is much more difficult for persons to draw off half the quantity of the former than that of the latter.

As regards snow-water, water is said to be clean and potable after the snow lying in contact with the corpse has melted away, and water thus obtained is rejected. As regards a running stream, its water is said to be clean and potable after waves have flowed thrice over that part of the stream after the removal of the corpse, and after the polluted water has been thus mixed up with a very large quantity of clean water so that the cadaveric poison becomes very much attenuated by being dissolved in an immense quantity of pure water.

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1 S. B. E. Vol. IV., p. 72.

The object of regarding water that is polluted by dead organic matter as unclean and impotable is that it is injurious to those who drink it. If water containing such putrescent animal organic matter is used for drinking, it is found to produce diarrhœa and dysentery.

Dr. E. Parkes says:—"The opinion is very widely diffused that dissolved and putrescent animal organic matter, to the amount of three to ten grains per gallon, may produce diarrhœa."[1]

"The animal organic matter derived from graveyards appears to be especially hurtful."[2]

CHAPTER VIII.

On the *condemnation* of *burning* the *nasu*.[3]

Then deadly Angra-Mainyu, contrary to this, committed the sinful and inexpiable deed of burning the *nasu*. (Vend. I. 17.)

This para. means that men guided by the Evil Spirit committed the sinful and inexpiable deed of burning the dead body or dead organic matter.

O Holy Creator of the material world! If Mazdayasnians, walking, or running, or riding, or driving, come upon a *nasu*-burning fire, (where) they (*i.e.*, persons) are burning or cooking the *nasu*, what shall the Mazdayasnians do? (Vend. VIII., 73.)

Then Ahura Mazda answered:—They shall kill these *nasu*-burners, they shall put it[4] out,[5] they shall disperse the pile, they shall disperse the pyre.

(Vend. VIII., 74.)

From the paras. quoted above, it appears that the Mazdayasnians, who happen to reach a place where a dead body is being burnt, are ordered to kill the *nasu*-burner, to put out fire, and to disperse the pyre.

1 E. A. Parkes' Hygiene, p. 40. 2 Ib., p. 41. 3 *i.e.* a dead body or dead organic matter. 4 *i.e.* fire. 5 Smite, Kângâ's Vend., p. 180.

The object of this mandate is to prevent the corpse from being burnt and thus to prevent it from giving rise to the foul odour due to the production of the poisonous gases, which, if inhaled in a large quantity, may poison the men burning the corpse. For this reason and for preventing the fire from being polluted by bringing it in contact with dead matter, the Mazdayasnians are strictly enjoined not to burn the dead, as well as to prevent others from burning them.

That poisonous gases, such as carbon dioxide, carbon monoxide, nitrogen or perhaps combinations of nitrogen are given off, when a dead body is burnt, can be inferred from the following para. :—

"If, instead of being buried, the body is burned, the same process occurs more rapidly and with different combinations; carbon dioxide, carbon monoxide (?), nitrogen, or perhaps combinations of nitrogen, water, &c., are given off, and the mineral constituents, and a little carbon, remain behind."[1]

Cremation as performed in America and Europe is quite different from that practised by the Hindoos and alluded to in the text, for in the former a dead body is burnt by the powerful rays of heat directed upon it in a closed chamber, while in the latter the dead body is placed on a pile of fuel in an open space, and the body and the pile are set on fire ; again, the body is consumed much more rapidly in the former than in the latter ; and lastly, the poisonous gases given off are not inhaled by those who burn the body in the former, while they are liable to be inhaled by them in the latter. Cremation as performed in America and Europe resembles to a great extent the process of consuming the body by the powerful rays of the sun as enjoined on the Mazdayasnians in the Vendîdâd.[2]

1 E. A. Parkes' Hygiene, p. 459.

2 I think it advisable to insert here the following letter which appeared above the signature of "K" in the "Times of India," June 24th 1905, as I quite agree with the views expressed in it by the correspondent.

[*See foot-note 2, on page 51*

CHAPTER IX.

On the *impurity* of *men* and *cows eating* the *nasu*.

Can the *men* be *purified* who have *eaten* the *nasu* of a dead dog or of a dead man?

(Vend. VII., 23.)

Then Ahura Mazda answered :—O holy Zarathustra! they cannot be purified. These men (are) doing harm to their stomachs and (are) doing harm to their hearts. These men throw out flashes[1] from the eyes."

(Vend. VII., 24.)

This para. suggests that those who eat the flesh of dead dogs and of dead men injure their stomachs and hearts, and see flashes of light. In the present civilised age, men hardly partake of the flesh of dead dogs and of dead men, consequently, the symptoms arising from eating such a flesh I have not found

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[*Continuation of foot-note 2, from p. 50.*]

"To the editor of the 'Times of India.'

Sir,

I am one of those in favour of suitable innovations, but an opponent of undesirable changes. I am opposed to cremation, not because as a Parsee I rigidly adhere to the prevailing mode, but because I am convinced that no scientific method of the present day is superior to the Parsee custom of disposing of the dead. Whilst cremation turns the body into dust and fails to achieve nature's purpose of utility, exposure to vultures is but an obedience to the great law that decrees that every distinct entity should be turned to practical account before it is restored to its elements. Vultures, as nature's scavengers render invaluable service, and their evolution in the order of nature shows what purpose they have to fulfil. The rational basis of this mode is thus beyond question, and its sanitary advantages are too patent to require comment."

1 (*i.e.*, the eyes of these men flash light, *i.e.*, flashes of light are seen by their eyes.) I prefer to translate the word *spiti-dôithra* by *flashes*, literally *eye-flashes*. Ervad Kângâ has not translated this word in his valuable translation, but has translated the word in his highly valuable dictionary by "bright eyes."

recorded in medical works. We do not know whether the cannibals living in the forests of Africa suffer from the diseases of the stomach and heart, and whether they suffer from such diseases of the eye as give rise to flashes of light. But what we do know is that the symptoms of the gastro-intestinal tract, such as vomiting and diarrhœa, are produced by eating the flesh of a dead animal when decomposing. This statement is corroborated by the following quotations :—

"*The flesh of healthy animals when decomposing* is eaten sometimes without danger ; but it occasionally gives rise to gastro-intestinal disorder—vomiting, diarrhœa, and great depression ; in some cases severe febrile symptoms occur, which are like typhus, on account of the great cerebral complication."[1]

"Among the *Mammalia* the flesh of the pig sometimes causes diarrhœa—a fact noticed by Dr. Parkes in India, and often mentioned by others...Sometimes pork, not obviously diseased has produced choleraic symptoms."[2]

"*Symptoms* more or less resembling those of poisoning, may arise from eating the flesh of diseased animals, and also from eating meat which has undergone decomposition."[3]

"*Putrid Animal Matter* may cause severe and dangerous symptoms of irritant poisoning. The irritation of the alimentary canal is accompanied either by symptoms of collapse or of narcotism."[4]

"*Putrid Meat.*—Several cases have been reported of persons having been attacked with symptoms of poisoning either irritant or narcotico-irritant in character, after eating putrid meat. In some of these cases the meat eaten has been in a condition of incipient putrefaction only. Cases of this last kind have frequently occurred from eating sausages : hence the term sausage-poisoning.

1 and 2 E. A. Parkes' Hygiene, p. 219. 3 Lyon's Medical Jurisprudence, p. 227. 4 Guy's Forensic Medicine, p. 660.

"In sausage-poisoning, besides the usual irritant symptoms, dryness of the skin and mucous membranes, dilatation of the pupils, and paralysis of the upper eyelids have been observed. Various theories have been put forward to account for such cases. Very possibly they are due to the development of a ptomaine or cadaveric alkaloid."[1]

Section I.

Can the *cows* be *purified* which have *eaten* the *nasu* of a dead dog or of a dead man?

(Vend. VII. 76.)

Then Ahura Mazda answered :—O holy Zarathustra ! they can be purified. Neither cheese shall be used for religious ceremony nor milk for the Barsam ceremony within a year's period, but they[2] become food for holy men after a year's period according to (their) desire in the same manner as before. (Vend VII., 77.)

Though the period assigned for not using the milk of a cow that has eaten the corpse or carcass and the cheese prepared from the milk is rather too long, the reasonableness for not using them cannot be denied, for they are liable to contain a ptomaine or cadaveric alkaloid and to poison those who take them internally. That they may be poisonous is evident from the following quotation :—

"Cheese and Milk.—In more than one case symptoms of irritant poisoning nave been produced by eating cheese. In such cases, the cheese eaten has generally, but not invariably, been found to be rancid. The milk of diseased cows has been known to cause vomiting, and cases have been lately reported of outbreaks of poisoning traceable to milk, the symptoms being irritant in character, and accompanied by burning pain in the œsophagus. In these last referred to

1 Lyon's Medical Jurisprudence, p. 228. 2 i.e., milk and cheese.

cases, and also in a lately reported case of cheese-poisoning, a poisonous ptomaine was found in the milk and cheese at fault."[1]

CHAPTER X.

On the *impurity* of *men* and *things coming* in *contact* with the *nasu*; and on the *punishment inflicted* on a *corpse-bearer carrying* a *corpse alone.*

Can the *men become clean* who have *touched the dried up corpse* of a person who died more than a year ago?

(Vend VIII., 33.)

Then Ahura Mazda answered:—O holy Zarathustra! they can become clean, (for) a dry thing does not stick to a dry thing. (Vend. VIII., 34.)

The statement that "a dry thing does not stick to a dry thing" is quite consistent with reason. All the soft parts of a corpse are found destroyed by putrefaction at the end of a year, and what remains of the corpse is the dry bony skeleton. All its soft parts including all the organs of the body except the uterus are destroyed within six months after death. "The uterus resists putrefaction longest of all." "Casper found it at the end of nine months in a fit state for examination, when all the other viscera were gone and the bones almost separated from each other."[2]

Thus a person who touches the dried up corpse of a person who died more than a year ago touches it in a dry state and is consequently not considered impure.

1 Lyon's Medical Jurisprudence, pp. 228–229. 2 Guy's Forensic Medicine, p. 256.

Section I.

Can a *man*[1] be *purified* who has *touched*[2] a *corpse* in a *remote corner* of a *forest*[3]?

(Vend. VIII., 97.)

Then Ahura Mazda answered :—'O holy Zarathustra! he[4] can be purified.' 'How?' 'Thus' :—If the corpse be bitten by the corpse-eating dogs or the corpse-eating birds, he shall cleanse his body thoroughly with bull's urine, "he shall wash it thirty times, he shall rub it dry with the hand thirty times, beginning every time with the head."[5] (Vend. VIII., 98.)

But if the corpse is not bitten by the corpse-eating dogs or the corpse-eating birds, he shall cleanse his body thoroughl ywith bull's urine, "he shall wash it fifteen times, he shall rub it dry with the hand fifteen times."[6] (Vend. VIII., 99.)

The reasons why the person who has touched a bitten corpse is ordered to wash and rub his body twice as many times as one who has touched it when entire, are that a wounded body putrefies more rapidly than an entire body,[7] and that what is more putrefied is more injurious when touched.

Section II.

Can a *man*[8] be *purified* who has *touched* the *nasu* of a dead dog or of a dead man?

(Vend. VIII., 35.)

Then Ahura-Mazda answered :—'O holy Zarathustra! he[9] can be purified.' 'How?' 'Thus' :—If this corpse is bitten by the corpse-eating dogs, or by the corpse-eating birds, he shall cleanse his body thoroughly with bull's urine and water. Thus he[10] is made clean again. (Vend. VIII., 36.)

1, 3 and 4 In the text in the plural number. 2 Literally, stood near. 5 and 6 S. B. E. Vol. IV. p. 120. 7 *Vide* Guy's Forensic Medicine, p. 260. 8 Men (in the text.) 9 and 10 they (in the text.)

This bath appears to be the temporary means of purifying oneself, for he is required to take the bath of purification, as described in the paras. 40-71 of the eighth Fargard to purify himself thoroughly. But if the man has touched a dead body not bitten by a corpse-eating dog or a corpse-eating bird, the Mazdayasnians are enjoined to dig nine pits in the ground, at the first three of which the impure man shall cleanse his body with bull's urine only, and then the dog must be brought to him. The same process of purification shall be repeated at the next three pits. Then he shall wash his body at the remaining three pits with water. (*Vide* Vend. VIII., 37-39.)

The man who has touched a bitten carcass or corpse is enjoined to take the purificatory bath more punctiliously than when he has touched an entire carcass or corpse, for a wounded body becomes more putrid in the same period than an entire one. The dog is brought near the impure man at the first two stages of purification to drive away by the magnetic influence ascribed to his eyes any fly hovering about him.

Section III.

On the *purification* of the *hamrit* and the *patrit*.

The term *hamrit*[1] is applied to one who becomes directly defiled by touching a corpse or dead organic matter.

The term *patrit* is applied to one who becomes indirectly defiled by touching the *hamrit*.

Can a man be purified when he becomes *hamrit* and *patrit*? He can be purified by making him wash his body four times with the urine of the consecrated ox and twice with water.' (Vend. XIX., 20-22.)

1 Mr. Jivanji Jamshedji Modi remarks :—To use modern phraseology used in the plague epidemic, *a hamrit* is a "contact", a *patrit* is an "evict."

Section IV.

At what *distance* shall the *corpse-bearers sit* from the *corpse?*

Then the corpse-bearers shall sit apart as many as three paces from the dead. (Vend. VIII., 11.)

The corpse-bearers are enjoined to sit at a distance of three paces from the corpse for the following two reasons :—

(1) That they may not run the risk of taking the contagion by sitting in close contact with it, if it be of a person who has died of a contagious or infectious disease.

(2) That they may not run the risk of inhaling foul exhalations issuing from it by sitting long in close contact with it, in case decomposition set in very early.

Section. V.

How shall the *corpse-bearers* be *purified?*

Then[1] the corpse-bearers shall sit apart as many as three paces from the dead. Then the holy priest shall proclaim to the Mazdayasniâns :—'The Mazdayasniâns shall bring the urine with which the corpse-bearers shall wash (their) hair and bodies' (Vend. VIII., 11.)

'O Creator! O holy Ahura Mazda! Whose urine shall it be wherewith the corpse-bearers shall wash (their) hair and bodies, of sheep or of cattle, or of men or of women? (Vend. VIII., 12.)

Then Ahura Mazda said :—'Of sheep or of cattle; neither of men nor of women; that discharged[2] by these two (animals only) which are male[3] domesticated and female domesticated (animals).

1 *i. e.* After exposing the corpse to the dogs and vultures.

2 Literally 'paraget' means 'coming out' from 'para' सं० पर, परा=out and 'gat' 'get' = 'coming,' from, 'ga,'=सं. गा to come, hence discharged; (*vide* Kângâ's Dict., p. 319.)

3 Qaêtvadathascha', 'Qaêtvadatischa' = male domesticated and female domesticated (animals) from 'qaêtu' = self, and 'datha' = giving, (*vide* Kângâ's Dict., pp. 138 and 245).

They[1] shall make them[2] pass[3] the urine wherewith the corpse-bearers shall wash (their) hair and bodies.

(Vend. VIII., 13.)

The reason why the urine of sheep or of cattle and not of men nor of women is used for cleaning the hair and person of a corpse-bearer will be given under the heading of bull's urine.

Section VI.

When can the *road* be *utilised* again by which dead dogs and dead men are carried?

The road by which the dead body of a dog or of a man is carried can be used by beasts or cattle, or men or women, and for carrying fire, *barsam*, &c., only after the yellow dog with four eyes, or the white dog with yellow ears is made to pass by that road thrice, or six times, or nine times if possible; if not, a priest may pass by that road, reciting the prayers called the *Yathâ ahu vairyo* and *Kem nâ Mazdâ* which are said to be efficacious in driving away the Druj-Nasu.

(*Vide* Vend. VIII., 14-22.)

The reason why the yellow dog with four eyes '(*i.e.* a dog with two spots above the eyes)'[4] or the white dog with yellow ears is made to pass by the road by which the dead body is carried, before it can be utilised again, is to drive away the flies (the Druj-Nasu of the text) carrying the minute particles of dead organic matter and hovering about the dead body by the magnetic[5] influence ascribed to the eyes of these particular dogs.[6] That the flies are the means of disse-

1 *i.e.* The Mazdayasniâns. 2 *i.e.* the domesticated animals. 3 'Maêzayanta'-they shall cause them to pass urine, causal verb, from mij-मेंह् मिह् to sprinkle (originally), hence, to make water. 4 S. B. E. Vol, iv., foot note, p. 99. 5 Haug's Essays, *vide* foot-note, p. 240.

6 Mr. Jivanji Jamshedji Modi thinks that some of these customs are simply old national customs which have nothing to do with sanitation. They do not come under the head of sanitary rules. The Vedas also speak of such dogs. The Romans had their Ceberus. The late Mr. Tyrrel

[*See foot-note 7, on page 59.*]

minating contagious diseases is corroborated by the following quotation :—

" Flies and other insects are believed to be the means of disseminating contagious diseases in some instances by alighting first on diseased, and then on healthy individuals, or they may probably convey contagious poisons directly from excreta."[1]

Section VII.

Can *fuel* be *purified* that has been *carried* to the *nasu* of a dead dog or of a dead man ?

(Vend. VII., 28.)

Then Ahura-Mazda answered :—' O holy Zarathustra! it can be purified.' ' How ? ' ' Thus ':—If the dead body is not bitten by the corpse-eating dogs or by the corpse-eating birds, (the Mazdayasnians shall cut off from it) a piece about a span long, if dry ; and about two spans long, if green. But if the corpse is bitten by the corpse-eating dogs or birds, (they shall cut off from it) a piece about two spans long, if dry, and about the length of the upper extremity, if green. They shall place (the remaining piece) on the ground, and sprinkle once every one of its four sides with water and it thus becomes clean. (Vend VII., 29-30.)

A larger piece of fuel is ordered to be rejected when it is green than when it is dry, because green fuel contains moisture which aids putrefaction. Again more of fuel is ordered to be rejected when touched by a corpse bitten by a dog or a vulture, for, the corpse when wounded becomes much more putrid than when entire in a certain space of time.

[*Continuation of foot-note* 6, *from page 58.*]

Leith, the founder of the Anthropological Society of Bombay, has treated the subject of dogs under the heading of "The Dog in Myth and Custom." A part of his Notes is published in the Journal of the Anthropological Society of Bombay in the form of " Anthropological Scraps." (*Vide* vol. iii. No. 5, pp. 302-306 and No. 6 pp. 360-362.)

1 F. Roberts' Medicine, p. 96.

Section VIII.

Can *corn* and *fodder* be *purified* that have been *touched* by the *nasu* of a dead dog or of a dead man?

(Vend. VII., 32.)

Then Ahura Mazda answered :—'O holy Zarathustra! They can be purified.' 'How?' 'Thus' :—If the dead body is not bitten by the corpse-eating dogs or by the corpse-eating birds, (the Mazdayasnians shall reject thereof) about two spans long, if dry; (and) about the length of an arm, if green. But if the dead body is bitten by the corpse-eating dogs or by the corpse-eating birds (they shall reject thereof) about the length of an arm, if dry; but if green, (they shall reject thereof) about a fathom long. (Having rejected so much), they shall place (the remainder) on the ground and shall sprinkle once every one of its four sides with water, and it thus becomes clean.

(Vend. VII., 33-34).

The larger quantity of fresh corn or fodder is rejected than that of dry one, for the former contains moisture which aids putrefaction. Again more of corn or fodder is rejected when touched by a bitten corpse, for putrefaction is more advanced during a certain period when a corpse is bitten than when entire.

Section IX.

Can the *eating-vessels* be *purified* that have been *touched* by the *nasu* of a dead dog or of a dead man?

(Vend. VII., 13.)

Then Ahura Mazda answered :—'O holy Zarathustra! they can be made clean.' 'How?' 'Thus':—

If (the vessels) be made of gold, they shall be washed once with gômêz,[1] they shall be rubbed once with

1 *i.e.* the urine of the bull.

earth, and they shall be washed once with water, then they become clean. If they be made of silver, they shall be cleansed twice; if of iron, they shall be cleansed thrice; if of zinc, they shall be cleansed four times; and if of stone, they shall be cleansed six times with gômêz, earth, and water. But if (they) be made of earth, of wood, or of clay, they are unclean for ever and ever. (*Vide* Vend. VII., 74-75.)

The number of times a vessel is ordered to be cleansed depends on the specific gravity or relative density of the substance of which the vessel is made. The higher the specific gravity of a substance, the denser it is; the lower the specific gravity of a substance, the more porous it is. The more porous a substance is, the greater is the chance of its being contaminated with putrid matter, which finds more space to penetrate into it. As gold is the densest metal known its specific gravity being 19·3,[1] the vessel made of it is ordered to be cleansed once only; as silver's specific gravity is less than that of gold, namely[2] 10·53, the vessel made of it is ordered to be cleansed twice; as iron's specific gravity[3] (7·8) is less than that of silver, the vessel made of it is ordered to be cleansed thrice; and as zinc's specific gravity[4] (7) is less than that of iron, the vessel made of it is ordered to be cleansed four times with gômêz, earth, and water. But the vessels made of earth, wood, or clay are regarded as impure for ever, and wisely forbidden to be used, for they, being more porous than metallic vessels, are more liable to be contaminated by putrid matter and thus they are more liable to poison food placed in them.

1 Bloxam's chemistry, p. 476. 2 Ib., p. 450. 3 Ib., p. 376.
4 Ib. p., 339.

Section X.

Can the *clothes* be *purified* that have been *touched* by the *nasu* of a dead dog or of a dead man?

(Vend. VII., 12.)

Then Ahura Mazda answered :—'They can be purified, O holy Zarathustra!' 'How'? 'Thus':—If (the clothes) be soiled with pus, perspiration, excrement, or vomit, the Mazdayasnians shall rend these clothes to pieces, and bury them. (Vend. VII., 13.)

But if not soiled with pus, perspiration, excrement, or vomit, the Mazdayasnians shall wash these clothes with gômêz. (Vend. VII., 14.)

If (the cloth) is made of leather, they shall wash (it) with gômêz thrice, they shall rub (it) with earth thrice, (and) they shall expose (it) to the air for three months on the window of the houses. But if it be woven, they shall wash it with gômêz six times, they shall rub it with earth six times, they shall wash it with water six times, and they shall expose it to the air for six months at the window of the house. (Vend. VII., 15.)

The clothes that have come in direct contact with a dead person and that have been soiled with pus, fæces, &c., are prudently ordered to be destroyed, for they are instrumental in propagating contagious diseases among men, if the person died of a contagious disease, because the discharge and excretions with which they are soiled contain the specific germs of a contagious disease. For example, the pus and blood exuding from small-pox eruptions contain the germs of small-pox. If the cloth soiled with this pus and blood be handled by a child predisposed to the disease, and if the child touch a scratched or wounded part of its body with its dirty hand, the poison becomes inoculated in the scratched or wounded part; and the child thus contracts small-pox. Again, the ex-

cretions such as fæces, urine, vomit, &c., of a person suffering from the typhoid fever, cholera, plague, or desentery contain the specific germs of each of these diseases, and if a piece of cloth soiled with them be handled by a person who happens to scratch his skin with his dirty nails, he is liable to catch the disease with the poison of which he is thus accidentally inoculated.

The woven clothes that are not spoiled are ordered to be cleansed with gômêz, clay, and water six times, while those made of leather are ordered to be cleansed thrice with the same purifying agents, for leather is denser and less impermeable than any woven stuff. The clothes that are thus cleansed are ordered to be exposed to the air and light for drying them and for destroying the small particles of organic matter which defied the cleansing process mentioned above.

That contagious diseases are often propagated by clothes is corroborated by the following quotations :—

" Further, the contagious elements often become attached to what are termed *fomites*, including articles of clothing, especially those of a woollen, silken, or cotton fabric ; bedding and bed-clothes ; hair and various other articles ; and they are thus propagated." [1]

Small-pox :—" The poison also clings tenaciously to fomites, especially to clothes and other articles of a rough texture, and retains its vitality for a long period ; therefore it is highly dangerous to go into a room which has been occupied by a small pox patient, until this has been most thoroughly disinfected, while clothing and other articles will certainly propagate the disease, unless treated in a similar manner."[2]

Scarlatina :—"The infected epithelium-particles easily cling to clothes, letters, and other fomites, and by their aid are often carried far and wide." [3]

1 F. Roberts' Medicine., p. 96. 2 Ib., p. 154. 3 Ib., p. 140.

Section XI.

Is the *field rendered impure* which has been watered four times and into which *dead matter* is *brought* by the dog, fox, or wolf ?

If a dead body is brought by the dog, fox, or wolf into a field which has been watered four times, that field is not rendered impure. If the Mazdayasnians wish to carry on cultivation in the same field they may do so after removing the dead body.

(*Vide* Vend. v., 5-7.)

The field is not rendered impure if the corpse is removed very quickly before it putrefies.

Section XII.

What shall the *Mazdayasnians do* if a dog or a man *die* in a house after the *fire, barsom &c.,* are *brought* there ?

Then Ahura Mazda said :—O Spitama Zarathustra ! they shall carry off from this house[1] the fire, the *barsom*, the cups, the Homa, and the mortar ; and they shall take away the dead body from (it) in the same way in which a religious man (causes it) to be carried and devoured according to the law. (Vend. v., 40.)

O Creator ! When shall the Mazdayasniâns bring the fire back to this house where the man died ?

Then said Ahura Mazda :—The Mazdayasniâns shall wait nine nights in winter, but a month long in summer ; then they shall bring back the fire to the house where the man died. (Vend. v., 41–42.)

The reason why fire is ordered to be brought back to the house after nine days in winter and after one month in summer is that "putrefaction takes place more rapidly in summer than in winter,"[2] consequently the products of decomposition in a certain period are more in the summer than in the winter, hence a place takes more time to be purified in the summer than in the winter.

1 In the text, from these houses. 2 Guy's Forensic Medicine, p. 258.

Section XIII.

On the *punishment* inflicted on a corpse-bearer *carrying* a corpse *alone*.

Let no man carry a corpse alone. But if he should carry a corpse alone, and if *nasu* (*i. e.*, putrefying discharge) oozes out from the nose, from the eye, from the tongue, from the ear,[1] from the sexual organs, and from the anus (of the corpse), the Druj-Nasu rushes upon his[2] nails, and he[3] becomes unclean thenceforth, for ever and ever. (Vend. III., 14.)

If a man carry a corpse alone, he soon gets tired by the exertion he undergoes by carrying it to the *Dakhma;* and if the corpse carried by him be of one very dear to him, the loss that he has sustained by his death may tell upon his mind so much, that he may go beside himself and die through shock. Thus it is wisely ordained that no man should carry a corpse alone.[4] Again if a person carry it alone, and if any contagious discharge oozes out from any of its natural openings, and falls upon his exposed hands, he runs the risk of catching the contagion, if there be a scratch or an open wound on the hands. The Druj-Nasu is said to rush upon his nails, for when he touches or handles a putrefying substance, it is the nails and the tips of the fingers that are likely to come in contact with it, and the particles of the putrefying matter may be easily deposited on the projecting nails and in the grooves between them and the tips of the fingers.

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1 *Vide* Haug's Essays, foot-note 4, p. 317. 2 In the text *their*.
3 In the text *they become*. 4 One of the examiners of this Essay, Mr. Jivanji Jamshedji Modi, thinks that the custom does not seem to have been based on sanitary grounds alone. The injunction for *jôr* (pair) is meant for mutual help and sympathy.

CHAPTER XI.

On the bath of purification and segregation.

The *bath* of *purification*. (*Barashnûm*).

The purifier, technically called the *yaozdâthregar*, is enjoined first to cleanse the hands of a person defiled by the dead thrice with water. The object of thoroughly cleansing the hands first is that, as they are used in cleansing the other parts of the body, they themselves ought to be clean. He is then enjoined to pour clean water on the top of the head. When the clean water touches it, the Druj-Nasu is said to run away to the central part between the eyebrows only. When the clean water touches this part, the Druj-Nasu is said to run away to the back part of the head, whence it is said to run away successively to the chin,[1] the right ear, the left ear, the right shoulder, the left shoulder, and so on.

That the explanation given in the text as regards the flight of the Druj-Nasu from one spot to the other is true with some modification is evident from what follows :—

When water is poured on the top of the head, it carrying with it the contagion lying on the top of the head runs down in front to the central part between the eye-brows, behind to the lowest part of the back of the head, and along each lateral portion to the right and the left ear. Thus the Druj-Nasu lying on the top of the head runs down to the face, the neck, and the ears along the four sides of the head ; but in the text the Druj-Nasu is said to fly to the central part between the eyebrows only, simply because of the four sides of the head, the front side is selected first

1 *Vide* Kângâ's Vendîdâd, foot-note, p. 197. To the word *paitis-qarena* are attached different meanings by different authors. It is translated by 'jaws' by Darmesteter, by 'chin' by Spiegel, and by 'cheek' by Kângâ. I prefer to translate it here by 'chin.' It is derived from *paitis* = towards, and from *qarena* = jaws, from *qar* = to eat. Literally, those parts of the jaws which lie towards each other, hence the chin.

for purification, next to it the rear side, then the right side, and lastly the left side. When water is thrown on the part between the eyebrows, the Druj-Nasu is said to fly from it to the back portion of the head. This is partly true, for the water that is thrown on the part between the eyebrows, falls down along the face to the chin, and not to the back portion of the head, but as the water is dashed on the front portion of the head only, this portion is purified, while the rear portion lying on the same level is still contaminated with the contagion, hence the Druj-Nasu is said to fly there. When the water is dashed on the back portion of the head, the Druj-Nasu is said to fly to the chin, for the water partly flows along the jaws to the chin. Thus the water dashed against the front and rear portions of the head flows towards the chin, hence the Druj-Nasu is said to run away from the back portion of the head to the chin. When the water is dashed on the chin, the Druj-Nasu is said to fly away from it to the right ear, because the latter is still left unclean. When the right ear is washed, the Druj-Nasu is said to fly to the left ear, because the latter lying on the same level still remains to be washed, and not because the Druj-Nasu jumps from the right ear to the left, for the Druj-Nasu is always carried vertically downwards by the water. The same explanation holds good with the Druj-Nasu flying from the left ear to the right shoulder, and from the right shoulder to the left, and so on.

The purifier is enjoined after cleansing the left hip to throw water first on the anus and then on the sexual organs, if the unclean one be a male; for the lowest point of the sexual organs of the male rather reaches a lower level than the anus; but he is enjoined to throw water first in front and then behind, if the unclean one be a female; for the anus of the female is situated on a lower level than her external generative organs.

Having cleansed the anus and the genitals, the purifier is enjoined to cleanse the right and left thighs and so on, until he purifies the left instep when the Druj-Nasu conceals itself under the soles. Then the unclean man is enjoined to press his toes upon the ground and raise up his heel, when the purifier successively sprinkles his right and left soles with water. The object of pressing the toes upon the ground and raising the heels is to cleanse the soles and heels thoroughly and to let the water run towards the toes, which are afterwards cleansed when the unclean man is enjoined to press his heels upon the ground, the reason being that the water may fully come in contact with all the parts of the toes and the webs between them before it flows away towards the ground. (*Vide* Vend. VIII., 40–71 and IX., 15–26.)

The man defiled by the dead before taking the bath of purification is enjoined to cleanse his body first with *gômêz* a certain number of times, and to wait until the uppermost hair on the top of his head dries up. (*Vide* Vend. VIII., 37–38.)

After taking the bath of purification he is ordered to rub his body with earth and sand, which are good agents for absorbing moisture. Then he is ordered to wait until the top part of the skull and the hair covering it get dry, to wash his body with water several times, and to fumigate it with the fragrant odour given off by an aromatic substance on being burnt. Lastly he is enjoined to dress himself and to go to a place of segregation. (*Vide* Vend. IX., 29–32.)

Section I.

On the *danger* arising from the *bath* of *purification* given by an *inexperienced purifier*.

O Creator ! If the man who has not learnt the rites of purification according to the Mazdayasnian

religion from the *yaozdâthregar*[1] should purify[2] (the unclean), how shall I drive away hence the Druj (contagion) that rushes upon the alive from the dead? How shall the Nasu (contagion) which defiles the alive from the dead be here made helpless[3]?

(Vend. IX., 47.)

Then Ahura Mazda said:—O Spitama Zarathustra! Indeed the Druj-Nasu waxes stronger than she[4] was before. She (communicates) these diseases, these plagues, these damages (to the unclean) exactly as before. (Vend IX., 48.)

That the Druj-Nasu is what we now call the *contagion* is evident from the para. 47 quoted above, for it is distinctly stated here that it rushes upon the alive from the dead, and that it defiles the alive from the dead.

If an inexperienced purifier offer to cleanse an unclean man, the Druj-Nasu (contagion) is justly said "to wax stronger than she was before," and to expose the unclean man to the danger of contracting the disease as before; for, as the inexperienced purifier does not know the proper method of purifying him, the contagion is likely to remain in contact with his person, and thus it gets sufficient time to develop itself and produce in him the disease of which it is the germ, and the effect of which is thus justly said in the text to be as injurious as before, for he is now as liable to contract the disease as he was before, when he offered himself to be purified.

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1 *i.e.*, professional purifier. 2 *Paiti-hinchoit* literally means *he should sprinkle water*.

3 *Perenâitê* from *par*, 𐬯𐬌𐬨 = to make helpless, (*vide* Kângâ's Dict., p. 317). Kângâ and Darmesteter translate this word by "I fight against" taking it in the same sense as *perenânê*.

4 In the Avestâ as the *Druj-Nasu* is of the feminine gender, *hâ* refers to *drukhs yâ nasus*.

Section II.

On the *reward* to be *given* to the *professional purifier.*

An unclean man is enjoined to give the professional purifier some reward for purifying him. This reward varies with the means of the man purified, who must try his best to please the purifier, before the latter leaves the house of the former.(*Vide* Vend. IX. 37–39.)

The professional purifier "who cleanses from the Nasu the man defiled by the dead,"[1] delights the sacred elements, the faithful, &c., and is promised the welfare of the Paradise for his reward in the other world. (*Vide* Vend. IX., 42–44.)

The reasonableness of giving the purifier a handsome reward in this world as well as in the next is justified by the boon he bestows on the country by warding off an epidemic of a deadly contagious or infectious disease from it by purifying the unclean by adopting such measures as are efficacious in destroying the contagion.

Section III.

On the *penalty* incurred by the *inexperienced purifier* and its *justification.*

O Ahura Mazda! Who is[2] he that attacks me, that drives away prosperity, that takes away increase, that brings the disease (into the country), that introduces the plague (into the country)? (Vend. IX., 51.)

Then Ahura Mazda said:—O holy Zarathustra? Really, it is he the unholy violator of piety, who cleanses him[3] with the bath of purification in this material world without learning from the professional purifier the rites of cleansing according to the Mazdayasnian religion. (Vend. IX., 52.)

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1 S. B. E. Vol. IV., p. 133.

2 In the text all the verbs of this para. are in the imperfect tense.

3 *i.e.*, the unclean man.

From that time, O Spitama Zarathustra! away fly from the place and city plentifulness and prosperity, away (fly) happiness and health, away (fly) progress, increase and development, away (flies) the growth of corn and pasture. (Vend. IX., 53.)

O Creator! What is the penalty for him[1]? Then Ahura Mazda answered :—Those who (are) the Mazdayasnians shall bind (him) with a chain, they shall bind his hands first, they shall strip him of his clothes, they shall cause his head to be cut off skin-deep; "and they shall give over his corpse unto the greediest of the corpse-eating creatures made by the beneficent Spirit unto the vultures, with these words "[2] :—" Such (is the penalty) for him who does harm[3] to all (by) an evil thought, an evil word, and an evil deed."

(Vend. IX., 49.)

While the expert purifier was rewarded handsomely in this world, to the inexperienced purifier was dealt out heavy punishment, no less than capital, which, at first thought, appears to be very rigorous; but when we think for a moment of the heavy loss of lives and money a city had to sustain by the introduction of an epidemic of a pestilential disease into it by the neglect of the inexperienced purifier, who thus became an indirect cause of decimating the city of which he was the purifier (the health-officer in the words of the late Dr. C. F. Khory)[4] and of bringing misery upon it, the capital punishment that was awarded him seems to be justifiable. I do not wish to dilate upon the great havoc played by a contagious or infectious disease, if once allowed to be introduced into a city and to take its course without adopting such measures as are effective in stamping it out, for we, the inhabit-

1 *i.e.*, the inexperienced purifier. 2 S. B. E. Vol. IV., p. 135.

3 *Mithnâiti* = does harm, from *mith*, सं० मिथ् = to do harm, (*see* Kângâ's Dict., pp. 405 and 406).

4 *See* Kângâ's Vend., foot-note, p. 208.

ants of Bombay, have learnt in the course of the last ten years, at the heavy loss of precious lives and at the expense of lakhs of rupees, what havoc can be played by the introduction and propagation of such a pestilential disease as the plague, which has literally verified the statement expressed in the 53rd para. of the ninth Fargard of the Vendîdâd.

Section IV.

Segregation.

The man defiled by the dead after taking the bath of purification is enjoined to go to a place of segregation and sit at ease at its central lonely place apart from the other Mazdyasnians for nine nights during which he shall not voluntarily touch fire, water, soil, cattle, trees, the righteous man and woman, and shall wash his person respectively after the third, the sixth, and the ninth night. After taking the bath after the ninth night, that is on the tenth day, he may touch fire, water, &c. (*Vide* Vend. IX., 33-36.)

The man defiled by the dead is enjoined after taking the bath of purification to pass nine nights in seclusion, in the course of which he shall not touch others. This is a very wise injunction, for the incubation period of most of the contagious diseases extends usually from two to eight days, as will be seen from the following table, so that the symptoms of a contagious disease except mumps, hydrophobia, rötheln, and typhoid fever might show themselves before the end of the ninth night, if the man had been accidentally inoculated with its poison through contact with the dead body before he took the bath of purification. At present persons are kept in quarantine or a segregation camp for eight or ten days by the government of a civilised nation, when they come from a locality

where a contagious disease prevails in an epidemic form before they are allowed to enter any city.

The table showing the incubation periods of contagious diseases :—

Diseases.	*Incubation period.*
Diphtheria, Whooping cough, Cholera, Yellow Fever	2–4 days.
Plague	2–7 ,,
Scarlet Fever and Foot and Mouth Disease	3–5 ,,
Erysipelas	3–6 ,,
Acute Glanders	3–8 ,,
Influenza	A few hours to 5 or 6 days.
Small-pox	7 days, 12 days by infection.
Relapsing Fever	4–10 days.
Measles	6–14 ,,
Typhoid Fever	10–15 ,,

CHAPTER XII.

On the vohunajga dog, the udra or otter and the rabid dog.

The *vohunajga* dog.

O Creator ! If a man gives bad food to the *vohunajga* dog to what extent does he become guilty ?

Then Ahura Mazda said :—Really, he becomes guilty to the same extent as if he should give bad food to a holy man calling at this house with the qualifications worthy of a priest. (Vend. XIII., 22.)

Here the *vohunajga* dog is compared to the *yaozdâthregar* (*i.e.*, the *nasu*-driver, purifier), for they both destroy the *nasu*, the one by devouring the flesh of the dead animal, the other by cleansing the body of an impure man with antiseptic and disinfecting agents used while giving the bath of purification and with the fumigation of disinfecting substances after giving the bath.

Section I.

The *udra* or *otter*.

The *udra* is what is generally called in Persian *sag-e-âbi*, i.e., the *water-dog*. That the *udra* is really the *water-dog* can be demonstrated by the short description given of it in the 1st para. of the 14th Fargard and in the 51st para. of the 13th Fargard. In the 1st para. of the 14th Fargard the *udra* is described as living in water. The sentence 'there (in the stream) the couple of two *udras*, male and female, are produced from 1,000 dogs and 1,000 bitches,' occurs in the 51st para. of the 13th Fargard. From this one can infer that the *udra* is an aquatic animal resembling a dog. Thus the *udra* is correctly called in Persian *sag-e-âbi*, the water-dog. What animal is this water-dog? By what common name is it known? The answers to these questions can be easily given by the further description of the *udra* in the paras. 51-57 of the 13th Fargard. In the 51st para. it is stated that the killer of the *udra* brings about the drought that dries up pastures. One can easily understand that the drought dries up pastures, but how one who kills the *udra* brings about the drought is, at first thought, very difficult to understand, for the Avestâ is quite silent about the function performed by the *udra*. But the paras. 52–56 of the thirteenth Fargard give us some clue to it. These paras. are the same as the paras. 53–57 of the ninth Fargard substituting the "*udra*-killer" for "the wicked *Ashemaogha*" and "the good soul of the *udra*" for "the holy Sraosh of that place." In short, the *udra*-killer does as much harm to a city by killing the *udra* as the unqualified purifier does it by undertaking to cleanse the unclean, and thus both are ordered to pay the same penalty for committing sins apparently different in nature but of the same gravity, and bringing forth the same issue, namely, introducing misery into the city by driving away

prosperity and health by introducing the *nasu* (contagion) into it. Hence the function of the *udra* is the same as that of the purifier, namely, driving away the *nasu*; the one drives it away from water by devouring the flesh of a dead body found in water, the other from the person of an unclean man by cleansing it with water and disinfecting agents. Hence the *udra* must be a carnivorous animal living in water. The *otter* is a carnivorous animal living in water. It performs the same function in water as the *vohunajga* dog does on land. Therefore the *udra* of the Avestâ is the *otter*. In fact, both words *udra* and *otter* are derived from the same root, *vât* = सं० उन्द् = to moisten. In Sanskrit, the word for the *otter* is the same as that in the Avestâ, namely, उद्र. Though the function performed by the *vohunajga* dog and the *udra* is the same in nature, it differs in degree; for the *udra* is indirectly stated to be a much more powerful and valuable animal than the *vohunajga* dog, because the punishment inflicted on the killer of the *udra*, namely, 10,000 stripes (*vide* Vend. XIV., 2), is much more severe than that inflicted on the killer of the *vohunajga* dog, namely, 600 stripes. (*Vide* Vend. XIII., 14.) The *udra* is considered to be such an important and valuable creature that the whole of the fourteenth Fargard of the Vendîdâd is devoted to the description of the various sorts of punishment inflicted on one who kills it.

One who kills the *udra* brings on drought indirectly, for, when it is killed, there is no creature living in a certain river or its part to feed upon the corpse that may have found its way in it, hence its water becomes polluted by the putrefaction of the dead body, and consequently becomes unfit for drinking, until the means are adopted for its purification. Again, if the dead body be of a creature that has died of a contagious disease, the water of the river is likely to contain the germs of this disease, which may be commu-

nicated to those who drink it, and which may be introduced into the place from which health and prosperity may disappear.

Section II.

The *rabid* dog.

If a dog becomes dumb and rabid in this house of a Mazdyasnian, what shall the Mazdyasnians do? (Vend. XIII., 29.)

Then Ahura Mazda said:—"They shall carry (a piece of) scraped wood to his neck, as large as a brick, of dry (wood); and double this, of green (wood); and they shall tie it tightly to his mouth. (Vend. XIII.,30.)

They shall tie it tightly on both sides. They shall tighten him on both sides. (Vend. XIII., 31.)

If a dog become spiritless[1] and mad in the house of a Mazdayasnian, what shall the Mazdayasnians do? Then said Ahura Mazda:—They shall seek for a remedy for him just as they (would do) for any righteous man. (Vend. XIII., 35.)

O Creator! if they, having searched (for it), do not get (it), what shall the Mazdayasnians do? (Vend. XIII., 36.)

Then said Ahura Mazda:—They shall carry (a piece of) scraped wood to his neck, &c., as in para. 30. (Vend. XIII., 37.)

If not, the spiritless dog may fall into a pit, or a well, or down a precipice, or into a river or a stream, whereby he may be wounded; if he come to grief so, they thus become guilty of perpetrating this act. (Vend. XIII., 38.)

From the text it appears that when a dog becomes rabid, he becomes dumb and either spiritless or scentless. He does not really become dumb, but his bark becomes hoarse. Dr. B. Sanderson, while describing

1 Deranged in mind; mad, or scentless; (Kanga's Dict., p. 74,); scentless (S. B. E., Vol. IV., p. 164.)

the symptoms of rabies in the dog, says :—"In dogs that are tied up, it is noticeable that the bark has entirely lost its ring, and acquires a peculiar hoarseness, which can be recognised even by the most unobservant."[1]

Whether the rabid dog loses his scent is not known, but what is known is that he loses his spirit,[2] for Dr. Sanderson says :—"A dog about to become rabid loses its natural liveliness. It mopes about as if preoccupied or apprehensive."[3]

The Mazdyasnians are enjoined to take a piece of green wood of double the size of dry wood for tying it to the neck of a rabid dog, for the latter, having no sap, is denser and tougher than the former.

From the abovementioned paras. it is evident that if a dog becomes dumb and rabid, the Mazdyasnians are enjoined to search for a cure, and in case they fail to secure it, they are ordered to muzzle his mouth and tie him tightly on both sides. The object of muzzling his mouth is to prevent him from snapping at men and other domestic creatures. The reasons for fastening him tightly are as follows :—

(1) That he may not move about at large, may not touch men and beasts with his salivating mouth, and may not thus expose them to the risk of being inoculated with the deadly poison of rabies or hydrophobia, which is found in the saliva.

(2) That he may not soil any part of the house or furniture with his saliva, which, if soiled therewith, may become the source of communicating the disease of hydrophobia to those persons who come in contact with it, especially, when the part that has come into contact is abraded or wounded.

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1 Erichsen's Surgery, Vol. I, p. 356.

(2) Hence I prefer to translate *aham baodhemnô* by spiritless being derived from the root *budh* = बुध् = to know, or to be awake, instead of from the root *budh* = to smell.

3 Erichsen's Surgery, Vol. I., p. 356.

(3) And that he may not wound and kill himself by falling down a precipice, or into a pit, or a well, or a river.

Section III.

What *penalty* shall a man *pay* for *not securing* his rabid dog?

If not, [1] should the dumb and rabid dog bite a beast or a man, he (the owner) shall pay the same penalty as for inflicting the wound wilfully. (Vend. XIII., 31.) The object of inflicting this punishment on the owner was to prevent him from neglecting the duty he owed to his animal, for if he failed to discharge it, he exposed himself and other persons and animals to the risk of contracting the deadly disease of rabies or hydrophobia.

Section IV.

If the rabid dog *bites* men and other beasts, *what* shall the *Mazdayasnians do*?

The Mazdayasnians are enjoined to cut off successively the right ear, the left ear, the tendon of the right foot, the tendon of the left foot, and the tail of the rabid dog each time he bites other beasts and men. (*Vide* Vend., XIII., 32–35.)

The reasons that I can assign for taking this step are first to bleed him and thus to reduce his strength, and secondly to eliminate in part the poison circulating in the blood.

1 *i.e.*, if a Mazdyasnian does not fasten his rabid dog as stated in the para. 30. (Vend. XIII.)

CHAPTER XIII.

Hair and Nails.

Which man worships deadly *daêvas* with the most powerful plague? (Vend. XVII., 1.)

Then Ahura Mazda answered:—O holy Zarathustra! Really, he (is the man) who in this material world combs his hair, and crops it up all round, and pairs off nails, and then leaves it (*i.e.*, the cropped up hair) in the hair of the crown of the head and in the beard. (Vend., XVII., 2.)

Then the *daêvas* gather together in these filthy localities. Then the noxious creatures, which people call lice, and which eat up corn in the granaries of men and clothes in the wardrobes, gather together in these filthy spots. (Vend., XVII., 3.)

Therefore, thou, O Zarathustra! comb (thy) hair, crop it up all round, and pare off nails in this material world, then thou shalt take (them) away ten paces from pious men, twenty paces from fire, thirty paces from water, and fifty paces from the arranged *barsam*. (Vend., XVII., 4.)

Then thou shalt dig a hole there half a span deep in the hard ground and a span deep in the soft ground, and throw (the hair) into it," &c. (Vend. XVII., 5.)

"For the nails, thou shalt dig a hole, out of the house, as deep as the top joint of the little finger; thou shalt take the nails down there,"[1] &c. (Vend. XVII., 7.)

The first para. means—Who praises and invites noxious contagia causing the most deadly and contagious disease? The answer to this question is given in the second para. It is he who after dressing and cropping up hair leaves the cropped up hair in the

(1) S. B. E. Vol. IV., p. 191.

hair of the skull and beard. The extremities of the cropped up hair irritate the skin which becomes coated with dandruff forming a favourable nidus for the ova of lice. These lice gnaw the skin of the head, just as fleas nibble corn in granaries and clothes in wardrobes. It is these lice that irritate the skin and produce the disease called *phtheiriasis* or *pediculosis*.

The hair that is cropped up and the nails that are pared off are ordered to be thrown into a hole dug up in the ground[1] out of the house, so that they may not act as *fomites*, for on hair and nails are often deposited the germs of contagious diseases, hence they serve as the means of communicating these diseases.

Zarathustra is enjoined to comb the hair of his head and beard so that it may remain clean and free from dandruff, nits and lice. He is enjoined to pare off nails, for if they are not pared off, they grow big and then become dirty by the accumulation of dust or foul matter, which often forms the favourable nidus for the contagion of a specific disease.

CHAPTER XIV.

Menstruation.

Menstruation has been considered such an important subject from time immemorial upto the present age that the philosophers, physicians, and theologians of past ages, namely, Aristotle, Pliny, Hippocrates, the learned authors of the *Vendîdâd* and the Leviticus, &c., thought it necessary to write something about it. Even the learned men of the present age, such as physiologists, pathologists and gynæcologists

1 Ervad J. J. Modi observes that the necessity of burying the hair and nails suggests a custom and a belief common among other tribes that they serve as means for evil influences by evil-minded persons.

have considered it a matter of so much consequence that many of them have described it in detail. It is not a matter of surprise that it should have claimed so much attention from the learned men of the present age, when one considers what an important rôle it plays in the economy of woman during her child-bearing period. It is its normal function that makes her healthy and happy. It is its deranged function that gives rise to the special diseases from which she is liable to suffer. The authors of the *Vendîdâd* have attached so much importance to it that they have devoted the whole of the sixteenth Fargard to it. To understand what follows as regards this important subject, it is necessary for one to know something about the normal process of menstruation. Hence I think it advisable to quote what Dr. Edis says about it.

"Menstruation consists in a periodic discharge of a sanguineous fluid from the mucous membrane lining the body of the uterus, recurring at regular intervals of about a month, during the period of sexual activity in women except during pregnancy and lactation.

The terms catamenia, the name given by Aristotle, the monthly period, the menses, the courses, &c., are also employed to designate the menstrual flow. The flow has been regarded as a secretion and as a simple hæmorrhage. It is, however, a secretion, only in so far as it contains mucus, and it is something more than a simple hæmorrhage. According to John Williams, immediately before menstruation is about to take place, the inner surface of the body of the uterus is found to be soft, pulpy, and swollen. This is due to the presence of a membrane known as the dicidua menstrualis, lining the cavity. The decidua just before menstruation is pulpy in consistence....It is composed of a superficial layer of columnar epithelium, tubular glands lined by ciliated columnar epithelium, blood vessels, nerves, and lymphatics, imbedded

in a soft tissue, which again is formed of round and fusiform cells, lying in a transparent structureless matrix. The glands do not terminate at the line of union of the decidua and muscularis, but penetrate deeply into the latter structure. The decidua attains the highest development of which it is capable in the unimpregnated uterus just before a menstrual flow. At this time its matrix, cells, walls of blood-vessels, &c., undergo fatty degeneration. In consequence of this degeneration, and of the contraction of the uterine wall, the decidua becomes generally congested, the walls of its blood-vessels yield, and blood becomes effused into its superficial layers. After this has taken place, the whole of the membrane undergoes rapid disintegration and dissolution and is ultimately carried away as *débris* in the menstrual fluid. By this process all the vessels of the decidua, which run more or less perpendicularly to the inner surface of the uterus—both arteries and veins—are laid open, and hæmorrhage—the hæmorrhage of menstruation—follows. Menstruation is not, therefore, a separation of blood, or of blood and mucus simply, from the body by the uterus, but the molecular removal of a tissue which has become useless; and the hæmorrhage is the result of the destructive process by which the useless material is removed from the body. It is the terminal change of a cycle, beginning with the development of a new decidua and ending with its destruction."[1]

1 Edis' Diseases of Women, pp. 109-110.

Section I.

If a woman passing mucus,[1] having, the symptoms of menstruation, and passing blood, sit apart[2] in this Mazdayasnian house, what shall the Mazdaysnians do?

(Vend. XVI., 1.)

Then said Ahura Mazda:—The Mazdayasnians shall select a path for her away from trees, plants and fuel, shall strew the ground with dry sand, and shall isolate (for her) a half, or a third, or a fourth, or a fifth part from the house; if not, the girl will look at the fire; if not, the girl will see the light of the fire.

(Vend. XVI., 2.)

Her place shall be at a distance of fifteen paces from fire, water, the arranged *barsam*, and three paces away from righteous men. (*Vide* Vend. XVI., 3-4.)

For a menstruating girl are used in the text the three distinct words descriptive of her condition. She is described first as *chithravaiti*, *i.e.* passing mucus, secondly as *dakhstavaiti*, *i.e.* having the symptoms of menstruation, and thirdly as *vohunavaiti*, *i.e.* passing blood.

Firstly, the menstruating girl is described as passing mucus, for, according to Dr. W. S. Playfair, "mucus is always present to greater or less amount in the secretions of the cervix and vagina, which mix with the menstrual blood in its passage through the genital tract."[3] That these secretions precede the

1 Professor J. Darmesteter has translated *chithravaiti* by 'having the whites,' (*see* S. B. E. Vol. IV., p. 185), but I prefer to translate this word by 'passing mucus,' because the menstrual discharge consists of blood, mucus, &c., and because the expression 'having the whites' implies a disease, for a woman suffering from a disease passes the discharge called "the whites."

2 '*Nis-hidhât*' from *nis*, *ni* = सं० नि = 'far from' and *hat* = सं० सद् = to sit, (*see* Kângâ's Grammar, pp. 217—281.)

3 Playfair's Midwifery, Vol. I., p. 72.

menstrual flow is evident from the following statement of Dr. Galabin :—

"The cervix uteri, vagina, and vulva participate in the engorgement, and increased secretion from them precedes, accompanies, and follows the flow of blood."[1] Hence the menstruating girl is first described in the text as passing mucus, secondly as having the symptoms of menstruation.

The Symptoms of Menstruation.

"Menstruation being normally a physiological process, little or no discomfort is experienced by women in a state of health ; but where the condition of the general health is deteriorated, or the nervous system very impressionable, certain premonitory symptoms are not unusual. These are known as *molimina menstruationis*, and consist of a sensation of weight and fulness in the pelvis, bearing down or dragging, a feeling of weariness or aching in the loins, radiating downwards to the perineum and occasionally extending down the thighs. There is slight tenderness over the hypogastric and inguinal regions, with not infrequently a burning sensation. In some instances there is irritability of the bladder, frequency of micturition, or even retention. The regularity of the bowels is often interfered with, constipation or diarrhœa being not uncommon. The appetite fails, nausea or sickness is occasionally experienced, and the patient complains of feeling unwell. The breasts become hard and tender, and in some instances severe neuralgic pains are experienced in them. Dr. Barnes has pointed out that menstruation, and probably ovulation also, are, like pregnancy, preceded and accompanied by increased

1 Galabin's Diseases of Women, p. 41.

central nerve irritability and increased vascular tension. Fretfulness, irritability of temper, and increased tendency to attacks of hysteria, migraine, or epilepsy, are often noticed when any predisposition exists."[1]

The Mazdayasnians are enjoined to elect a path free from trees, plants, and fuel, for the passage of the menstruating woman so that she may not touch them. As wood is a very porous substance, she is enjoined not to touch it for the following reasons :—

(1) That if she holds fuel in her hands not properly cleansed, after being soiled with the menses, it is liable to be defiled with putrid organic matter which, when burnt, gives rise to foul odour.

(2) And that she may not engage herself in cooking food, for which fuel is chiefly used.

The menstruating woman is enjoined not to touch trees and plants, for Pliny says "on the approach of a woman in this state (the menstrual) . . . seeds which are touched by her become sterile ; grafts wither away, garden plants are withered up,"[2] etc.

The place of repose for the menstruating woman as well as the path leading to it is ordered to be strewn with dry sand in order to avoid moisture.

The Mazdayasnians are enjoined to isolate a part of the house where the menstruating girl may take rest in seclusion. That she needs rest, mental and physical, is evident from the pain and other symptoms which she is subject to, and which have been already described.

That the majority of menstruating women suffer from pain is evident from the following quotations :—

"Brierre de Boismont, in France found that among 360 women, 278 (or 77 per cent.) suffered some slighter or greater degree of pain at their monthly periods."[3]

1 Edis' Diseases of Women, p. 112. 2 Natural History, Book VII., Ch. 13. 3 "Man and Woman" by Havelock Ellis.

"It remains true, however, that in our existing social conditions 46 per cent. of women suffer more or less at menstruation, and that for a large number of these, when engaged in industrial pursuits of others, under the command of an employer, humanity dictates that rest from work during the period of pain be afforded where practicable."[1]

If the menstruating girl attempts to do household work as usual in her weakened condition, she gets tired too soon, for she is unable to cope with the strength requisite for doing hard work. Moreover, she menstruates longer and passes a larger quantity of blood, for the soft, swollen, and congested surfaces of the womb bleed more through friction when she moves about quickly and continuously for a long time.[2]

Dr. Edis says:—"The influence of exercise . . . . in increasing the discharge is often noticed." Drs. Hart and Barbour have mentioned "profuse menstruation and violent exercise during menstruation, such as dancing" to be the predisposing causes of pelvic hæmatocele.[3]

A menstruating girl needs physical as well as mental rest. She needs mental rest, for her nervous state during the period is at somewhat high tension, hence she easily becomes fretful on the slight cause of provocation, and consequently sometimes commits criminal acts, as is evident from the following quotation:—

"Lombrose found that out of 80 women arrested for opposition to the police, or for assault, only nine were not at the menstrual period. Legrand du Saulle found that out of 56 women detected in theft at shops in Paris, 35 were menstruating. There is no doubt whatever that suicide in women is specially liable to take place at this period. Krugelstein stated that in all cases (107) of suicide in a woman he had met

1 "The Question of Rest for Women during Menstruation" by Dr. Mary Putnam Jacobi, M. D.) 2 Edis' Diseases of Women, p. 112.
3 Gynecology by Drs. Hart and Barbour, p. 176.

with, the act was committed during this period "[1] Again, it is a well-known fact that when an organ is active, as distinguished from passive, it needs more blood, because besides requiring blood for its nutrition, it requires additional blood in order to be provided with the materials used up in carrying out its function. For example, more blood is supplied to the digestive tract during digestion than at other times, and to the brain when it is active than when it is at rest So more blood passes to the uterus when it is active during a menstrual period than when it is passive at other times. Thus more blood is then supplied to it not only to maintain its nutrition, but also to enable it to carry out its function of removing what is effete in the form of menses. Again, when an organ is active, and consequently when it requires more blood to carry out its function, it is necessary for the other organs, especially, the brain, to remain in a somewhat quiescent state. For example, while more blood is required by the digestive tract to perform its secreting function during digestion, the brain and the muscular tissue are required to remain comparatively in a quiescent state. But if the latter are overactive while the digestion is going on, the quality and quantity of the digestive fluids secreted are not such as they ought to be, and consequently the digestion is carried on inefficiently. For this very reason, physiologists instruct us neither to take hard physical exercise nor to study hard immediately after taking meals as long as the digestive process is actively going on. For the same reason, gynæcologists insruct a menstruating girl not to take violent exercise nor to stimulate the mind to excess as long as menstruation lasts. If she does not keep her mind at rest, menstruation is deranged, as will be seen from the following quotations :—

"Rich diet, luxurious living, and anything that

1 "Man and Woman," by Havelock Ellis.

unhealthily stimulates the body and mind, will have an injurious effect in increasing the flow,"[1] etc.

"Sudden suppression may occur . . . from some powerful mental emotion or shock."[2]

"Strong emotional excitement during the period occasionally has the same* effect."[3]

The place where a menstruating girl should take rest is ordered to be selected at a distance of fifteen paces from fire for the following reasons :—

(1) That she may not see fire or its light as stated in the text. I do not quite understand the reason why she is forbidden to see fire or its light. The only reason that I can give is to prevent her from cooking food.

(2) That when one stands or works before a fire-place for a long time, the radiating heat of fire acts upon the skin which perspires freely. This free perspiration removes a part of the fluid portion of the blood from it, and disturbs its normal consistence, and thus deranges menstruation ; for, the proper function of menstruation depends partly on the exact proportion of the normal constituents of the blood.

(3) That excessive heat relaxes the tissues of the uterus, and thus deranges menstruation. That excessive heat or warm climate deranges menstruation is evident from the following quotation :—

"It[4] is more abundant in warm climates, and our country-women in India habitually menstruate over-profusely, becoming less abundantly unwell when they return to England. The same observation has been

1 Playfair's Midwifery. Vol. I., p. 71.

2 Edis' Diseases of Women, p. 425.

* *i.e.*, has the effect of checking the flow. 3. Ib., p. 444.

4 *i.e.*, Menstruation.

made with regard to American women residing in the Gulf States, who improve materially by removing to the Lake States. Some women appear to menstruate more in summer than in winter. I am acquainted with a lady who spends the winter in St. Petersburg, where her periods last eight or ten days, and the summer in England, where they never exceed four or five. The difference is probably due to the effect of the over-heated rooms in which she lives in Russia." [1]

(4) And that she may not touch fire, for it is regarded as one of the four sacred elements, and is used as a purifying agent.

Further, the place where the menstruating woman should take rest is wisely fixed at a distance of fifteen paces from water, for lying on a damp soil surrounding a well exposes one to cold and moisture. Exposure to cold and moisture during the menstrual period gives rise to the following diseases :—

(1) Acute metritis, (2) chronic endometritis, (3) acute endometritis, (4) pelvic cellulitis, (5) pelvic peritonitis, (6) pelvic hæmatocele, (7) acute vaginitis, (8) congestive or inflammatory dysmenorrhœa, (9) and ovaritis.

1. "The third variety (of Acute Metritis) where the inflammatory process is rarely so intense as in the two former, occurs mostly from exposure to cold during menstruation." [2]

2. "Chronic Endometritis :—Among the exciting causes may be mentioned exposure to cold during menstruation with consequent sudden arrest of the flow." [3]

3. "Sudden arrest of menstrual flow from exposure to cold during menstruation, at a time when the uterus is in a state of intense hyperæmia, would naturally tend to produce *acute endometritis* terminating in the chronic affection." [4]

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1 Playfair's Midwifery, Vol. I., p. 72.

2 Edis' Deseases of Women, p. 122. 3 Ib., p. 138. 4 Ib., p. 138.

Acute Endometritis :—"It is occasioned by exposure to cold or sexual excess at the periods."[1]

4. "In nulliparæ, cellulitis may arise from the same causes as are given under pelvic peritonitis, *e.g* exposure to cold during menstruation."[2]

5. "Peritonitis more frequently results from exposure to cold during menstruation."[3]

"The causes of pelvic peritonitis are numerous. They are chiefly the following . . . . 5. A chill, especially during menstruation."[4]

"It can be readily understood how the pelvic congestion of menstruation may under undue exposure to cold pass into peritonitis.'[5]

6. "Pelvic Hæmatocele" :—"The exciting causes are sudden suppression of the catamenial flow from cold,"[6] etc.

7. "In adults acute vaginitis may be produced by exposure to cold or wet, more particularly at a menstrual period,"[7] etc.

8. "Congestive or inflammatory Dysmenorrhœa. Causes :—Exposure to damp and cold during menstruation is frequently sufficient to check the flow, and often proves the starting-point of much future discomfort."[8]

"The causes of ovaritis are the following :—

1. Chill at menstrual period,"[9] etc.

Of these diseases, acute metritis and endometritis, pelvic peritonitis, cellulitis, and hæmatocele may prove fatal, if allowed to run their course without early and efficient treatment; while the remaining diseases such as ovaritis, conjestive dysmenorrhœa and chronic endometritis, though not immediately fatal in their effects, may often prove injurious by

1 Gynecology, by Drs. Hart and Barbour, p. 306. 2 Ib., p. 164. 3 Edis' Diseases of Women, p. 314. 4 Gynecology, by Drs. Hart and Barbour, p. 136. 5 Ib., p. 157. 6 Edis' Diseases of Women, p. 331. 7 Ib., p. 394. 8 Ib., p. 444.
9 Gynecology, by Drs. Hart and Barbour, p. 195.

giving rise to chronic local symptoms and by interfering with the general nutrition of the system.

That a menstruating woman is prone to take cold, if exposed to cold and wet, is evident from the following quotations :—

"It is notorious that menstruating women are especially prone to take cold if exposed to fatigue, cold, and wet, and that partial or total arrest of menstruation is often the consequence."[1]

"During 'the monthly periods' violent exercise is injurious; iced drinks and acid beverages are improper ; and bathing in the sea, and bathing the feet in cold water, and *cold* baths are dangerous ; indeed, at such times as these no risks should be run, and no experiments should, for one moment, be permitted, otherwise serious consequences will, in all probability, ensue. 'The monthly periods' are times not to be trifled with, or woe betide the unfortunate trifler."[2]

The menstruating woman is ordered to be at a distance of three paces from the righteous, for the latter are not only considered as sacred beings, but they are also regarded as purifiers ; and, if touched by her, their power of purifying others is supposed to deteriorate. The other reason for keeping the menstruating girl away from the pious is that they may not perceive the peculiar odour of her breath or the heavy odour of the menstrual blood hanging about her, which is sometimes so strong that it can hardly be suppressed by the powerful perfumes used for supressing it. Dr. Playfair quotes the following passage in connection with it :—

" Raciborski mentions a lady who was so sensitive to this odour that she could always tell to a certainty when any woman was menstruating."[3]

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1 The British Medical Journal, 2nd March, 1889.

2 Chavasse's Advice to a Wife, p. 97.

3 Playfair's Midwifery, Vol. I., p. 73.

Section II.

In what kinds of vessels shall food be served out to a menstruating girl?

Her food is ordered to be brought in vessels made of brass, or of lead, or of the cheapest metal (*vide* Vend. xvi., 5–6), for, as metallic vessels are less porous and less permeable to putrid matter than earthenware vessels, there are fewer chances for the contamination of food when served out in the former. She is supplied with food, for, firstly, she is enjoined to take rest, and secondly, her touch is supposed to contaminate food, as will be seen from the following quotations :—

Pliny tells us that "on the approach of a woman in this state (the menstrual)...meat will become sour."[1]

"Among a very large section of women of the middle and lower classes in England and other countries it is firmly believed that the touch of a menstruating woman will contaminate food; only a few years since, in the course of a correspondence on this subject in the British Medical Journal (1878) even medical men were found to state from personal observation that they had no doubt whatever on this point. Thus one doctor, who expressed surprise that any doubt could be thrown on this point, wrote, after quoting cases of spoiled hams, etc., presumed to be due to this cause, which had come under his own personal observation :—

"For two thousand years the Italians have had this idea of menstruating women. We English hold to it, the Americans have it, also the Australians." "Women of every class preserve this belief, and still regard the periodic function—although it is frequently a factor of the very first importance in their personal and social life—as almost too shameful to be alluded to."[2]

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1 Natural History, Book VII., Ch. 13.
2 "Man and Woman," by Havelock Ellis.

Section III.

What quantity of food shall be given to a menstruating girl?

Two *danares* of dry food and one *danare*[1] of liquid food shall be given to her, lest the girl should get too weak. (Vend. XVI., 7.)

This para. means that simple food should be given to a menstruating girl in a moderate quantity, otherwise she would continue to menstruate long, and get very weak. That the reason given here is correct is evident from the following quotation:—

"Rich diet, luxurious living, and anything that unhealthily stimulates the body and mind, will have an injurious effect in increasing the flow,"[2] &c.

Section IV.

How long shall a menstruating girl remain in her place of seclusion?

If she still see blood after three nights have passed, she shall sit in her place of seclusion until four nights have passed. If she still see blood after four nights have passed, she shall sit in her place of seclusion until five nights have passed, and so on until she passes nine nights. (*Vide* Vend. XVI., 8–10.)

If she still see blood after nine nights have passed, the *daêvas* do her harm[3] for their adoration and glorification, consequently, the Mazdayasnians shall select the path for her away from trees, plants and fuel.

(Vend. XVI., 11.)

1 "A *danare* is, according to Anquetil, as much as four *tolas*; a tola is from 105 to 175 grains." (S.B.E. Vol. IV., foot-note 4, p. 186.)

2 Playfair's Midwifery, p. 71. 3 Literally, bring harm to her.

Then the Mazdayasnians shall dig three holes in this earth, (and) shall wash her with gômêz in the two holes and with water in (the remaining) one.

(Vend. XVI., 12.)

One can infer from the paras. 8-11 that the period of normal menstruation is said to average from three to nine days. That nearly the same period is mentioned by gynecologists is evident from the following passages:—

"The average period of flow is from three to five days, but it may be prolonged to seven or eight without being abnormal. It continues longer as a rule in women who reside in towns than in those who live in the country."[1]

"The natural duration of the flow is from three to five days, but in some women it lasts habitually for seven or eight."[2]

"The discharge lasts for a number of days, varying from 2 to 8, if below 2 or above 8 it is abnormal; but of course other points besides mere duration must be taken into account."[3]

"The duration of the period varies in different women, and in the same woman at different times. In this country its average is four or five days, while in France, Dubois and Brierre de Boismont fix eight days as the most usual length. Some women are only unwell for a few hours, while in others the period may last many days beyond the average without being considered abnormal."[4]

The menstruating girl is enjoined to pass in seclusion the night of the day on which she observes the cessation of her flow. This mandate is given for two reasons. One is that the flow sometimes stops for a few hours and then reappears. The other is that

1 Edis' Diseases of Women, p. 112.
2 Galabin's Diseases of Women, pp. 38-39.
3 Gynecology, by Drs. Hart and Barbour, p. 83.
4 Playfair's Midwifery, Vol. 1., p. 71.

sexual excitement may bring it on again. That the menstrual flow may cease for a few hours and then reappear under emotion is evident from the following quotation :—

"Towards the last days it[1] sometimes disappears for a few hours, and then comes on again, and is apt to recur under any excitement or emotion." [2]

If the menstruating girl sees the discharge after the first nine nights since its commencement, she is enjoined to be cleansed, for its continuation after this period is correctly said in the text to be due to the *daêvas i.e.* diseases, for its normal period averages from 3 to 8 days. If the period extends beyond nine nights, the flow may be due to some organic diseases or to the unhealthy condition of the blood which must be cured in order to stop it.

Section V.

On the condemnation of suppression of menses.

Then should this Mazdayasna suppress the menses of this girl passing mucus, having the symptoms of menstruation, (and) passing blood, what is the penalty for him? Then said Ahura Mazda :—Two hundred stripes shall be struck on his criminal body with a horse-whip, and two hundred (stripes shall be struck) with the whip called the *Sraoshô-charana.*

(Vend. XVI., 13.)

Whoever attempts to suppress the menses of a menstruating girl by giving her drugs and adopting other means, such as cold bath, etc., is justly punished for checking menstruation temporarily only, for her health becomes impaired in the following way by adopting this measure :—

The flow of menstrual blood is often checked some hours only to reappear in a larger quantity than

1 *i.e.* loss of blood.

2 Playfair's midwifery, Vol. I., p. 72.

before, as soon as the effects of the drugs administered pass off. She sometimes gets chills and fever while cleansing her body with water after the sudden cessation of the menstrual flow. At other times the menstrual blood, if large in quantity, flows backwards along the Fallopian tubes into the peritoneal sac, especially into the pouch formed by it behind the uterus, called the Douglas's pouch, or between the folds of the broad ligament, giving rise to the disease called the *pelvic hæmatocele.* If the menstrual blood collected in the pouch suppurates by coming into contact with septic matter, it gives rise to the disease called the *pelvic abscess.* Both these diseases, if not treated early and efficiently, sometimes proves fatal. If cured, they often leave their mark behind, for they weaken her system so much that she hardly regains her former health.

Section VI.

On the condemnation of sexual intercourse with a menstruating woman.

If a man, being conscious and cognizant of (the state of) a girl passing mucus, having the symptoms of menstruation, and passing blood, discharges his semen into her, (who is) conscious, cognizant and aware (of her state), what is the atonement for it? what is the penitence for it? how shall he, being cognizant of (the act), atone for this act done?

(Vend. XVIII., 67–68.)

He is enjoined to kill 1000 crawling snakes, 1000 corn-carrying ants, 1000 land-frogs, etc., or to offer 1000 bundles of dry wood, or of *Urvâsna* or of Vohûgaona, etc., to the fire, or to put thirty rafters in a stream, &c. (*Vide* Vend. xviii, 69–76.)

The man, who passionately touches the body of a menstruating woman and sits by her, is ordered to be flogged on the first occasion with thirty stripes, on

the second occasion with fifty stripes, and on the third occasion with seventy stripes.

(*Vide* Vend. xvi., 14–15.)

The man who discharges his semen into a woman passing mucus, having the symptoms of menstruation, and passing blood, does no better deed than if he should burn the corpse of his own son and drop its putrid matter into fire. (Vend. xvi, 17.)

This para. means that the man, who copulates with a menstruating woman, commits a crime equivalent in its effect to that of burning the corpse of his own child and its putrid matter. The reason for this is that the semen by being mixed up with mucus and menstrual blood loses its power of fecundating the ovule, for the acrid vaginal secretion destroys the movements of the spermatozoa, hence the semen which would fecundate the ovule of a healthy woman not menstruating at the time, is destroyed as it were by the heat of mucus and menstrual blood, and hence the man who discharges his semen into a menstruating woman is justly said to perpetrate an act no less serious than that of burning the corpse of his own child and its putrid matter.

Sexual intercourse with a menstruating woman is so much condemned in the Vendîdâd that it is regarded as one of the five sins committed by a man, which, being not confessed and atoned for, makes the perpetrator a *Peshotanu*[1]. (*Vide* Vend. xv., 7.) It is justly condemned, for it increases menstrual discharge, and sometimes gives rise to diseases, such as pelvic hæmatocele and acute endometritris, as can be seen from the following extracts :—

"The influence of exercise, and especially of coitus in increasing the discharge is often noticed."[2]

1 "That is to say : he shall receive two hundred strokes with the Aspahê-Astra or the Sraosho-*Karana* ; or pay three hundred istirs." (S. B.E., Vol. IV., *see* foot-note, p. 176.)

2 Edis' Diseases of Women, p. 112.

Pelvic Hæmatocele:—"The exciting causes are .....immoderate coitus especially at or near a menstrual period,"[1] &c.

"*Predisposing causes* of *Pelvic Hæmatocele* :—Profuse menstruation; violent exercise during menstruation, such as dancing; violent coitus during menstruation."[2]

"*Acute Endometritis* is a rare condition, and never occurs before puberty. It comes on most frequently in connection with menstruation, when the physiological congestion rapidly passes into inflammation. It is occasioned by exposure to cold or sexual excess at the periods."[3]

CHAPTER XV.

Labour.

The subject of labour is considered so important by the authors of the Vendîdâd that some part of it is treated twice in the same strain in two different chapters. In fact, the paras. 45-54 of the fifth Fargard are the same as the 60-69 paras. of the seventh Fargard.

When a pregnant woman gives birth to a still-born child, what should the Mazdayasnians do?

If a pregnant woman gives birth to a still-born child from one month to ten months old in a Mazdayasnian house, the Mazdayasnians shall select for her a place in the house whereof the ground is the cleanest and driest, and through which flocks and herds pass least. This place shall be at a distance of thirty paces from fire, water, and the arranged *barsam*, and three paces away from the righteous.

1 Edis' Diseases of Women, p. 331.
2 Gynecology by Drs. Hart and Barbour, p. 176.
3 Ib., p. 306.

It shall be surrounded by an enclosure where the Mazdayasnians shall provide her with food and clothes. (*Vide* Vend. v., 45-49, and VII., 60-64).

The Mazdayasnians are here enjoined to select for the confinement of a parturient woman a place in the house, the ground of which is the driest and cleanest. The reason for selecting the driest ground of the house for her confinement is that she may not be subject to the diseases induced by exposure to damp and cold. The reasons for selecting the cleanest place for her confinement are as follow :—

(1) That she may not be subject to the diseases of the respiratory tract caused by the inhalation of the air containing the irritative particles of dust.

(2) And that she may not contract the diseases brought on by the introduction of the pathogenic germs into her system either by inhaling the air containing them or by allowing them to come in direct contact with the open blood vessels and lymphatics of the hypestrophied uterus, if it is imperfectly contracted, or with the raw surface of its cervix and of the perinæum, when they are accidentally ruptured or carelessly allowed to be ruptured during labour.

The object of selecting such a place as is least passed through by the flocks of sheep and herds of cattle for the confinement of the parturient woman is that the perfect rest, both mental and physical, which she needs after delivery, may not be disturbed by their intrusion into her place of confinement and by their bleating and bellowing.

The reason for selecting the place of confinement at a distance of thirty paces from fire, water, and the *barsam* is that as these substances are regarded as sacred things, they are not allowed to be brought into contact with such an unclean being as a woman in confinement, who passes the discharge called the *lochia* for the first two or three weeks after delivery.

The reasons for enjoining a righteous man to be at a distance of three paces from a parturient woman are as follow :—

(1) That he may not come in contact with such an unclean woman as a lying-in woman.

(2) That if she suffers from puerperal fever, and that if he touch her body, bedding, clothes or linen soiled with her discharge, and do not wash his hands with an antiseptic solution, he becomes the medium of communicating the disease to other lying-in women on coming in contact with them.

(3) And that she may not run the risk of contracting puerperal fever by coming into contact with him, if he happen to carry about septic matter on his person or clothes.

I quote here the following passages from Dr. Playfair's Treatise on the Science and Practice of Midwifery and from Havelock Ellis' Manual on the Nationalisation of Health to corroborate the above-mentioned statements :—

"The last source from which septic matter may be conveyed is from a patient suffering from puerperal septicæmia, a mode of origin, which has, of late, attracted special attention. That this is the explanation of the occasional endemic prevalence of the disease in lying-in hospitals can scarcely be doubted."[1]

"The poison may be conveyed, in the same manner, from one private patient to another. Of this there are many lamentable instances recorded. Thus it was mentioned by a gentleman at the recent discussion at the Obstetrical Society, that 5 out of 14 women he attended died, no other practitioner in the neighbourhood having a case. This origin of the disease was clearly pointed out by Gordon, towards the end of last century, who stated that he himself was the means of carrying the infection to a great

1 Playfair's Midwifery, Vol. II., p. 344.

number of women,' and he also traced the spread of the disease in the same way in the practice of certain midwives In some remarkable instances the unhappy property of carrying contagion has clung to individuals in a way which is most mysterious, and which has led to the supposition that the whole system becomes saturated with the poison. One of the strangest cases of this kind was that of Dr. Rutter, of Philadelphia, which caused much discussion. He had 45 cases of puerperal septicæmia in his own practice in one year, while none of his neighbours' patients were attacked. Of him it is related, 'Dr. Rutter, to rid himself of the mysterious influence which seemed to attend upon his practice, left the city for ten days, and before waiting on the next parturient case had his hair shaved off, and put on a wig, took a hot bath, and changed every article of his apparel, taking nothing with him that he had worn or carried to his knowledge on any former occasion ; and mark the result. The lady, notwithstanding that she had an easy parturition, was seized the next day with child-bed fever, and died on the eleventh day after the birth of the child. Two years later he made another attempt at self-purification, and the next case attended fell a victim to the same disease.' No wonder that Meigs, in commenting on such a history, refused to believe that the doctor carried the poison, and rather thought that he was 'merely unhappy in meeting with such accidents through God's providence.' It appears, however, that Dr. Rutter was the subject of a form of ozæna, and it is quite obvious that, under such circumstances, his hands could never have been free from septic matter. This observation is of peculiar interest as showing that the sources of infection may exist in conditions difficult to suspect and impossible to obviate, and it affords a satisfactory explanation of a case which was for years considered puzzling in the extreme

It is quite possible that other similar cases, of which many are on record, although none so remarkable, may possibly have depended on some similar cause personal to the medical attendant."[1]

"Over and over again has puerperal fever singled out the patients of some private practitioner who has brought death to mother after mother in succession. Every medical man knows of such cases. Dr. Lusk has investigated this matter in New York. Studying the records of that city for nine years, "I find," he says, "that the occurrence of two deaths from puerperal disease, following one another so closely as to lead to the suspicion of inoculation occurred to thirty physicians; a sequence of three cases occurred in the practice of three physicians; one physician lost three cases, and afterwards two, in succession; one physician had once two deaths, once three deaths, and twice four deaths, following one another; finally, a physician reported once a loss of two cases near together, then of six patients in six months, and then of six patients in six weeks."[2]

"Dr. Oliver, in a paper on "Puerperal Septicæmia," read at the British Gynæcological Society Congress in 1891, gave the history of numerous cases in private practice which had come under his notice, in which disease and death had been carried from patient to patient by both doctors and nurses owing to the neglect of elementary antiseptic precautions."[3]

"As on the view of puerperal septicæmia which seems most to agree with recorded facts, the poison, from whatever source it may be derived, must come into actual contact with lesions of continuity in the generative tract, it is obvious that one method of conveyance may be on the hands of the accoucheur. That this is a possibility, and that the disease has

1 Playfair's Midwifery, Vol. II, pp. 345-346.
2 The Nationalisation of Health by Havelock Ellis, pp. 138-139.
3 Ib., *see* foot-note, pp. 139-140.

often been unhappily conveyed in this way, no one can doubt. Still it would be unfair in the extreme to conclude that this is the only way in which infection may arise. In town practice, especially, there are many other ways in which septic matter may reach the patient. The nurse may be the means of communication, and, if she have been in contact with septic matter, she is even more likely than the medical attendant to convey it when washing the genitals during the first few days after delivery, the time that absorption is most apt to occur. Barnes relates a whole series of cases occurring in a suburb of London, in the practice of different practitioners, every one of which was attended by the same nurse. Again, septic matter may be carried in sponges, linen, and other articles. What is more likely, for example, than that a careless nurse might use an imperfectly washed sponge, on which discharge has been allowed to remain and decompose?"[1]

"This question naturally involves a reference to the duty of those who are unfortunately brought into contact with septic matter in any form, either in a patient suffering from puerperal septicæmia, zymotic disease, or offensive discharges. The practitioner cannot always avoid such contact, and it is practically impossible to relinquish obstetric work every time that he is in attendance on a case from which contagion may be carried. Nor do I believe, especially in these days when the use of antiseptics is so well understood, that it is essential. It was otherwise when antiseptics were not employed; but I can scarcely conceive any case in which the risk of infection cannot be prevented by proper care. The danger I believe to be chiefly in not recognising the possible risk, and in neglecting the use of proper precautions. It is impossible, therefore, to urge too strongly the

1 Playfair's Midwifery, Vol. II., pp. 346-347.

necessity of extreme and even exaggerated care in this direction. The practitioner should a custom himself, as much as possible, to use the left hand only in touching patients suffering from infectious diseases, as that which is not used, under ordinary circumstances, in obstetric manipulations. He should be most careful in the frequent employment of antiseptics in washing his hands, such as Condy's fluid, carbolic acid, or the 1 in 1,000 solution of perchloride of mercury. Clothing should be changed on leaving an infectious case. Much more care than is usually practised should be taken by nurses, especially in securing perfect cleanliness in everything brought into contact with the patient When, however, a practitioner is in actual and constant attendance on a case of puerperal septicæmia, when he is visiting his patient many times a day, especially if he be himself washing out the uterus with antiseptic lotions, it is certain that he cannot deliver other patients with safety, and he should secure the assistance of a brother practitioner, although there seems no reason why he should not visit women already confined, in whom he has not to make vaginal examinations.'[1]

"As the risk is much greater when lying-in women are collected together, such precautions, which this is not the place to discuss, are absolutely indicated. They are not, however, applicable in ordinary private practice; but there are certain simple precautions which everyone might adopt without trouble, which will materially lessen the risk of septic poisoning. Amongst these may be indicated the use of antiseptic lotions, with which the practitioner and nurse should always wash their hands before attending any case, or touching the genital organs; the use of carbolised oil, 1 in 8, for lubricating the fingers, catheter, forceps, etc.; syringing out

1 Playfair's Midwifery, Vol. II., pp. 347-348.

the vagina night and morning with diluted Condy's fluid; rigid attention to cleanliness in bedding, napkins, etc. Precautions such as these, although they may appear to some frivolous and useless, indicate a recognition of danger and an endeavour to remove it, and if they were generally inculcated on nurses and others, might go far to prevent the occurrence of septic mischief."[1]

When the practitioner and nurse are enjoined, before they touch a puerperal patient, to observe the above-mentioned precautions in an age in which the medical science is far advanced, one can easily understand the reasonableness of the injunction prescribed in the *Vendîdâd*—that the puerperal woman should remain at a distance of three paces from the righteous—an injunction given in an age when the medical science was in its very infancy.

The place of confinement is ordered to be surrounded by an enclosure for the following two reasons:—

1. That men and animals may not get easy access to the lying in woman and disturb her when she needs absolute rest.

2. And that she may be protected against strong draughts which she is unable to bear in her weakened condition, especially when her labour has proved tedious, or when she has lost a large quantity of blood through the laceration of her soft parts.

The Mazdayasnians are enjoined to provide the parturient woman with food and clothes during her confinement. The reason for giving this injunction is that she may not leave her bed and move about immediately after delivery, and may not engage herself in performing household duties at a time when she needs rest very badly for the following reasons, namely, (1) for recouping her strength, (2) for allowing any lacerated soft parts to heal up

1 Playfair's Midwifery, Vol. II., p. 348.

quickly, (3) for allowing the hypertrophied uterus to resume its former natural size by retrogressive changes which it undergoes after the expulsion of the fœtus, and (4) for preventing or checking the *post-partum hæmorrhage*. The rationability of giving her rest is at once seen by the ill effects produced on her constitution by allowing her to move about too soon after delivery.

The Mazdayasnians are enjoined to adopt the measures mentioned on the pages 98 and 99, whenever the pregnant woman gives birth to a child from one month to ten months old. In other words the same measures are enjoined to be adopted whether she gives birth to a partially developed or fully developed fœtus, that is, whether she miscarries or aborts, or is delivered at her full time. For she needs as much rest after miscarriage or abortion as she needs after labour at full term, nay, more, when we consider that the uterus is not prepared to undergo the retrogressive changes after abortion, which it undergoes after delivery at full term, and that the secundines do not separate so easily after premature labour as after parturition at term.

Section. I.

Diseases due to exposure to cold after labour.

"Cases of *Pelvic Peritonitis* not infrequently occur from sudden impression of cold, especially after parturition. A knowledge of this fact should make us extremely careful in allowing the patient to remain long lying in the wet linen, or exposing her unnecessarily to cold."[1]

"In adults *acute vaginitis* may be produced by exposure to cold or wet, more particularly at a menstrual period, or as a result of parturition, especially if followed by any retention of putrefying secretions. Want of cleanliness aggravates the malady"[2]

1 Edis' Diseases of Women, pp. 323-324. 2 Ib., p. 394.

Section II.

On cleansing the womb of the parturient woman.

Three or six or nine drops of gômêz mixed with ashes shall be dropped into the *dakhma* of the interior of the womb of the mother. (Vend. v., 51.)

The cavity of the womb of the lying-in woman who has given birth to a dead child is compared in this para. to the *dakhma*, for it serves as the place of repose for the dead fœtus until it is expelled, just as the *dakhma* serves as the place of rest for a corpse. The object of injecting some drops of gômêz mixed with ashes into the womb of the parturient woman who has given birth to a dead child is to disinfect the cavity of the womb, which is necessary for preventing septicæmia, especially when a still-born child is born, for the placenta and membranes are then generally found diseased, thickened, and so firmly adherent to the internal surface of the uterus, that they are not expelled *en masse* after the expulsion of the fœtus. Thus some portion of the secundines is generally left behind, and is apt to be decomposed, if it is not made aseptic by some disinfecting liquid. To corroborate what I have just stated I quote the following extracts from Dr. Playfair's Treatise on Midwifery :—

"Up to the end of the third month, when miscarriage occurs, the ovum is generally cast off *en masse*, the decidua subsequently coming away in shreds, or as an entire membrane. The abortion is then comparatively easy. From the third to the sixth month, after the placenta is formed, the amnion is, as a rule, first ruptured by the uterine contractions, and the fœtus is expelled by itself. The placenta and membranes may then be shed as in ordinary labour. It often happens, however, that on account of the firmness of the placental adhesion at this

period, the secundines are retained for a greater or less length of time. This subjects the patient to many risks, especially to those of profuse hæmorrhage, and of septicæmia.'[1]

"The most troublesome cases are those in which the fœtus is first expelled, and the placenta and membranes remain in utero. As long as this is the case the patient can never be considered safe from the occurrence of septicæmia. . . . . Under such circumstances fœtor and decomposition of the secundines may be prevented by intra-uterine injections of diluted Condy's fluid. Provided the os be sufficiently patulous to prevent the collection of the fluid in the uterine cavity, and not more than a drachm or two of fluid be injected at a time, so as simply to wash away and disinfect decomposing detritus, they can be used with perfect safety."[2]

"The vulva should be washed daily with Condy's fluid and water, and the patient will derive great comfort from having the vagina syringed gently out once a day with the same solution."[3]

"Unless express directions are given to the contrary, the vagina should be syringed twice daily after delivery with the 1-in-20 solution† with an equal quantity of hot water added to it."[4]

The reason, why the Mazdayasnians are enjoined to disinfect the womb of the parturient woman before they give her any food, is that any portion of the secundines, if allowed to remain *in utero* for a long time without being disinfected, may become septic and be absorbed by any wounded portion of the generative tract, giving rise to septicæmia, which is otherwise known as puerperal septicæmia or puerperal fever, which is highly contagious and likely to prove fatal if neglected.

1 Playfair's Midwifery Vol. I., p. 282. 2 Ib., Vol. I., pp 293–294.
3 and 4 Ib., Vol. II., p. 280. † *i. e.* 1-in-20 solution of carbolic acid

Section III

What food should be given to the lying-in woman ?

The lying-in woman is enjoined to drink the fresh milk of mares, cows, ewes, or she-goats, and to eat fruits with or without a rind for the first three days, after which, she may partake of, besides milk, well-cooked flesh containing no water, dry meal made of grains, and wine not diluted with water. (*Vide* Vend. v., 52-54.) The reasons for giving her milk for the first three days are (1) that she does not need heavy food because her appetite is impaired, and (2) that she feels very thirsty for the first three days. Milk is not only useful in quenching thirst, but is also very useful in sustaining one's life, especially of an invalid, for milk is the only substance that contains all the ingredients of food necessary for maintaining one's life. The reasons for giving the puerperal woman juicy fruits, such as lemons, grapes, etc., are as follow :—

(1) That they quench her thirst by means of water and acids, such as citric and malic contained in their juice.

(2) That they, being very delicious and sweet, are agreeable to her taste.

(3) That they are easily digestible and capable of easy assimilation, as they consist chiefly of water, sugar, and salts.

The lying-in woman is enjoined to eat well-cooked flesh, and dry meal made of grains (*i.e.* rice and bread), and to drink wine not diluted with water, after the lapse of the first three days after her confinement ; for she needs at this stage more nutritious food not only to maintain her life and recover her lost flesh, but also to provide for the materials that are necessary for carrying on the function of lactation which generally sets in 48 hours after delivery, and which is neces-

sary not only for the healthy growth of the child, but also for the proper contraction of the womb, which is proved to contract whenever the child is put to her breast.

The question what kind of food shall be given to a parturient woman has engrossed the minds of many physicians, for, it has been customary with old women to put her on a low diet during the whole period of her confinement which is reasonably condemned by Drs. Playfair and Oldham, whose opinions so much coincide with those of the authors of the *Vendîdâd* that I think it advisable to quote them here.

"The diet of the puerperal patient claims careful attention, the more so as old prejudices in this respect are as yet far from exploded, and as it is by no means rare to find mothers and nurses who still cling tenaciously to the idea that it is essential to prescribe a low regimen for many days after labour. The erroneousness of this plan is now so thoroughly recognised that it is hardly necessay to argue the point. There is, however, a tendency in some to err in the opposite direction, which leads them to insist on the patient's consuming solid food too soon after delivery, before she has regained her appetite, thereby producing nausea and intestinal derangement. Our best guide in this matter is the feelings of the patient herself. If, as is often the case, she be disinclined to eat, there is no reason why she should be urged to do so. A good cup of beef-tea, some bread and milk, or an egg beat up with milk, may generally be given with advantage shortly after delivery, and many patients are not inclined to take more for the first day or so. If the patient be hungry there is no reason why she should not have some more solid, but easily digested food, such as white fish, chicken, or sweetbread; and, after a day or two, she may resume her ordinary diet, bearing in mind that, being confined to bed, she cannot with advantage consume the

same amount of solid food as when she is up and about. Dr. Oldham, in his presidential address to the Obstetritcal Society, has some apposite remarks on this point, which are worthy of quotation :—'A puerperal month under the guidance of a monthly nurse is easily drawn out, and it is well if a love of the comforts of illness and the persuasion of being delicate, which are the infirmities of many women, do not induce a feeble life, which long survives after the occasion of it is forgotten. I know no reason why, if a woman is confined early in the morning, she should not have her breakfast of tea and toast at nine, her luncheon from some digestible meat at one, her cup of tea at five, her dinner with chicken at seven, and her tea again at nine, or the equivalent according to the variation of her habits of living. Of course, there is the common-sense selection of articles of food, guarding against excess, and avoiding stimulants. But gruel and slops, and all intermediate feeding, are to be avoided.' No one who has seen both methods adopted can fail to have been struck with the more rapid and satisfactory convalescence which takes place when the patient's strength is not weakened by an unnecessarily low diet. Stimulants, as a rule, are not required ; but, if the patient be weakly and exhausted, or if she be accustomed to their use, there can be no reasonable objection to their judicious administration."[1]

O Creator ! If fever attack her[2] weak body, and the two worst diseases, which (are) hunger and thirst, attack her, may this woman drink water ?

(Vend, VII., 70.)

Then said AhuraMazda :—She may drink ; the great object as regards her is this that (her) life may be saved by (consulting) a wise and holy man

1 Playfair's Midwifery, Vol. ii., pp. 278–279.

2 *i.e.* a puerperal woman's.

amongst the wise in matters affecting wisdom; but if this woman (herself) drinks a handful of water then you who are the Mazdayasnians become liable to punishment; the well-known spiritual lord, the famous confessor, adjudges punishment.

(Vend. VII., 71.)

The Mazdayasnians are wisely enjoined to give water to drink to a puerperal woman suffering from fever, after consulting a doctor if she feels very thirsty. But if she drinks water herself, her relatives and friends who attend on her are held responsible for the evil effects likely to be produced by drinking a very large quantity of it. A small quantity of water is necessary for quenching thirst, but a very large quantity of it dilates the stomach, and thus interferes with the free movement of the diaphragm and lungs, and hence with respiration which is chiefly carried on by the lungs assisted by the muscles of respiration.

Section IV.
How long shall a puerperal woman remain in seclusion?

O Creator! How long shall they[1] wait? How long shall she[2] put off eating meat and corn, and drinking wine? (Vend v., 53.)

Then said Ahura-Mazda:—Three nights long shall they wait; three nights long shall she put off eating meat and corn, and drinking wine. Then, after the three nights she shall wash over (her) body freed from clothing, with bull's urine and water in the nine pits; so they shall purify (her). (Vend. v., 54.)

O Creator! How long shall they wait? How long shall "she remain in seclusion after the three nights, in a separate place, with separate food, with separate clothing, apart from the other Mazdayasnians?"[3]

(Vend. v., 55.)

1 *i.e.*, Mazdayasnians. 2 *i.e.*, the puerperal woman.
3 Haug's Essays, p. 331.

Then said Ahura Mazda :—Nine nights long shall they wait; nine nights long shall she remain in seclusion after the three nights, in a separate place, with separate food, with separate clothing, apart from the other Mazdayasnians. Then after the nine nights she shall wash over (her) body, freed from clothing, with bull's urine and water; so they shall purify (her). (Vend. v., 56.)

From the text it appears that the puerperal woman is enjoined to remain in confinement for twelve days after which period she shall purify herself with bull's urine and water before touching any other person. The object of enjoining her not to leave her place of confinement until twelve days have elapsed since her delivery is to give her entire rest for the reasons described on the pages 105 and 106. The Mazdayasnians are enjoined to supply her with food and clothing during the same period, for she is too weak to move about and to do household work for the first twelve days after her delivery. They are enjoined not to touch her clothes, for these clothes are liable to be soiled with the discharge called the *lochia*, which may become septic owing to its decomposition and may thus communicate infection to those who touch them. She is enjoined not to touch any other person during the same period for the reasons already mentioned on the page 100.

As the puerperal woman is enjoined in the Vendidâd to take the purificatory bath on the thirteenth day after delivery, the woman of the age of the Vendidâd, inhabiting a temperate country like Persia, must have been very healthy and strong, and the lochia must have ceased before the end of the twelfth night. It is known that the duration of the lochia varies very much. Under ordinary circumstances it is very scanty after the first fortnight, but occasionally it continues some

what abundant for a month or more, without any bad results."[1]

Again, the tonic influence of a cold climate like that of Persia must have been one of the reasons for the early cessation of the *lochia*.

The puerperal woman is enjoined to remain in confinement for the first twelve days after her delivery, the object being that she may take prolonged rest and may not move about during this period. As regards the importance of prolonged rest which the lying-in woman should take Dr. Playfair observes as follows:—

"The most important part of the management of the puerperal state is the securing to the patient prolonged rest in the horizontal position, in order to favour proper involution of the uterus. For the first few days she should be kept as quiet and still as possible, not receiving the visits of any but her nearest relatives, thus avoiding all chance of undue excitement. It is customary among the better classes for the patient to remain in bed for eight or ten days; but, provided she be doing well, there can be no objection to her lying on the outside of the bed, or slipping on to a sofa, somewhat sooner. After ten days or a fortnight she may be permitted to sit on a chair for a little; but I am convinced that the longer she can be persuaded to retain the recumbent position, the more complete and satisfactory will be the progress of involution, and she should not be allowed to walk about until the third week, about which time she may also be permitted to take a drive. If it be borne in mind that it takes from six weeks to two months for the uterus to regain its natural size, the reason for prolonged rest will be obvious."[2]

1 Playfair's Midwifery. Vol. ii., p. 275.
2 Ib., p. 281.

At present it is customary for a Parsi lying-in woman to remain in confinement for forty days after delivery, and to take her purificatory bath on the forty-first day. This is a very wise custom, which ought to be strictly observed, for the involution of the uterus is completed (in other words, the uterus regains its normal size) in six or eight weeks.

Section V.

Diseases due to moving about too soon after abortion and delivery at full term.

If a puerperal woman move about too soon after delivery, she is liable to suffer from the following diseases :—" It* returns again after parturition to almost its normal size within six or eight weeks, in a state of health. Should any circumstances interfere with this process of involution, this retrograde metamorphosis of the puerperal uterus, we then have the condition termed *sub-involution*, which is an occurrence of very great frequency, and constitutes the chief cause of all chronic uterine disorders."[1]

Chronic metritis, which is regarded as identical with subinvolution by Drs. Hart and Barbour, is caused by rising too soon after delivery and repeated miscarriages. " If the patient *rise too soon*, the increased weight of the non-involuted uterus leads to passive congestion and formation of connective tissue. Passive congestion will, on the other hand, be diminished by whatever produces uterine contractions : the physiological stimulus of suckling, excited reflexly through the mammæ, favours involution ; in *non-lactation* this stimulus is absent.

* *i. e.* Uterus. 1 Edis' Diseases of Women, p. 153.

Abortions are an important cause: because patients do not take so much care of themselves as after a full-time labour, and the stimulus of lactation is absent. After abortion conception readily takes place before the uterus has returned to its normal size, and this favours a recurrence of abortion."[1]

"The *mere act of getting up too soon after delivery* at a time when the uterus is excessively bulky and the ligaments that should support it are relaxed, favours *prolapse* of the organ, and so induces *passive hyperæmia*, which will thus interfere with involution. This will of course be aggravated by prolonged standing or severe muscular efforts."[2]

"When the uterus is relaxed, as occurs shortly after parturition, the mere act of sneezing, coughing, or any muscular effort, may be sufficient to produce *inversion* (*i.e.* the uterus is simply turned inside out, so that the inner surface becomes the outer)."[3]

"Lying too long in the soiled linen after parturition, before being changed, getting up too soon after delivery, and resuming household cares,...too early indulgence in coitus after abortion or parturition, and other imprudent actions, are often fertile sources of *pelvic inflammation*."[4]

Retroflexion:—"It is frequent in multiparæ (rare in nulliparæ) because the etiology is specially related to the *puerperal condition*. If the patient *rise too soon* while the uterus is still large and heavy and the uterine supports correspondingly lax and weak, the tendency to displacement is increased."[5]

"*Pelvic Hæmatocele*:—The exciting causes are ..... undue exertion, over-fatigue, falls, blows &c., premature exertion after abortion."[6]

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1 Hart and Barbour's Manual of Gynecology, pp. 320-321.
2 Edis' Diseases of Women p. 154. 3 Ib., pp. 101-102.
4 Ib., p. 312. 5 Hart and Barbour's Manual of Gynecology, p. 347.
6 Edis' Diseases of Women, p. 331.

"Abortion has a still greater influence in the production of subinvolution than even parturition at full term. This is readily explained by the fact that the dehisence of the decidua at an early stage of pregnancy is often imperfect, owing to the close attachment to the uterine mucous membrane, the unpreparedness of the uterus to throw off the ovum, and the frequent occurrence of some morbid process which determines the abortion. The stimulus of lactation is absent, *the patient generally gets about again too soon*, and not only favours congestion of the uterus by connubial intercourse, but incurs the risk of another pregnancy, before the process of involution has had time to take place. The uterus may become considerably enlarged independently of pregnancy, as in cases of stenosis, or flexion of the uterus, the muscular tissue becoming hypertrophied from the violent efforts made to expel the contents. Moreover, it must be remembered that the uterus is constantly undergoing changes from puberty until the menopause, its vascularity and functional activity being increased by emotional influences as well as by the ever-recurring menstrual congestion. Any alteration in these conditions may give rise to hypertrophy or hyperplasia."[1]

It is much to be regretted that Parsi women do not pay so much attention to rest after miscarriage as they do after a full-time labour. That it is highly advisable for them to take complete and prolonged rest after miscarriage is indicated by the following paras :—

"Abortions are even a more frequent cause of subinvolution than parturition at full term : care must be taken that the whole of the ovum be removed, when it is not expelled entire, &c. Strict rest

1 Edis' Diseases of Women, p. 154.

should be enjoined for the first week or ten days, and the patient should not return to the marital couch, nor to her usual occupations, for at least a month."[1]

"The frequency with which abortion leads to chronic uterine disease should lead us to attach much more importance to the subsequent management of the patient than has been customary. The usual practice is to confine the patient to bed for two or three days only, and then to allow her to resume her ordinary avocations, on the supposition that a miscarriage requires less subsequent care than a confinement. The contrary of this is, however, most probably the case ; for the uterus has been emptied when it is unprepared for involution, and that process is often very imperfectly performed. We should, therefore, insist on at least as much attention being paid to rest as after labour at term."[2]

Section VI.

Can the clothes be used, that have come in contact with a lying-in woman after being washed and purified ?

The priest, the warrior, and the husbandman are enjoined not to use the clothes that have come in contact with a lying-in woman. These clothes, after being thoroughly washed and disinfected, are ordered to be used by menstruating women and wounded persons for covering their persons and beds, and for cleansing any part soiled with excrement : for any thing that can be utilized is not allowed to be rejected by Ahura Mazda.

(*Vide* Vend. v. 57-60 & vii., 17-20).

1 Edis' Diseases of Women, p. 158.
2 Playfair's Midwifery, Vol. 1., p. 295.

This is a very sensible mandate, for, such clothes can be used as sheets or bedcoverings likely to be soiled with pus, blood, or any other discharge, or as rags for cleansing any part of the body soiled with excrement or urine, instead of using brand-new cloth.

CHAPTER XVI.

Pregnancy and abortion.

On the prohibition of sexual intercourse with a pregnant woman if it hurts her.

The fifth of these (sinful) deeds that persons perpetrate (is this that) (when) he copulates with a pregnant woman having milk or not having milk (in her breasts), and quick with child, she may be hurt thereby; if she is hurt thereby, they[1] thus become *peshotanu* by perpetrating this deed.

(Vend xv., 8.)

If sexual intercourse with a pregnant woman hurts her, it is forbidden. The pregnant woman who is likely to be injured by it is said to be one who is 'quick with child,' and who has or has not milk in her breasts. She is 'quick with child' when she experiences a sensation caused by the movements of the fœtus *in utero* transmitted to the abdominal walls. It is about the sixteenth week, that she experiences it when the gravid uterus becomes so enlarged that it comes above the brim of the pelvis and lies in contact with the abdominal walls so that the movements of the fœtus *in utero* are communicated to them. The time when milk is noticed in her breasts varies very much. It is rarely noticed as early as the third month, but it is generally found after the fourth or fifth month. In rare cases it is noticed only after delivery. Hence the pregnant woman who is

1 *i.e.* the male and the female.

likely to be injured by sexual intercourse is said in the text to be one who has got or has not got milk in her breasts. What one can infer from the above-mentioned description is this that copulation is likely to prove prejudicial to her in or after the sixteenth week. It is likely to prove prejudicial at this period if it stimulates by reflex action the uterus and abdominal muscles to such powerful contractions as will expel the fœtus out of the womb.

Section I.

On the prohibition of inducing abortion in a pregnant woman.

" If a man come near unto a damsel, either dependent on the chief of the family, or not dependent, either delivered (unto a husband) or not delivered,"[1] and make her pregnant, " let her not, being ashamed of the people, produce in herself the menses, against the course of nature, by means of water and plants;"[2] and let her not destroy her own fœtus ; and if she destroy it out of shame, her parents shall pay the penalty assigned for intentionally inflicting a wound.

(*Vide* Vend. xv., 9-12.).

One can easily infer from what is quoted above that if a damsel becomes conceived by illicit intercourse, she is enjoined neither to induce premature labour nor to kill her fœtus. The object of giving these mandates is that she may not kill herself and her child out of shame by drugs or some other means. When the nervous system of a woman who has become pregnant by legitimate intercourse is often found to be at high tension, and when the stability of her mind is often disturbed by some sudden impulse, it is more likely for a bashful, nervous woman

1 S. B. E. Vol. iv., p. 178. 2 Ib., p. 178.

who finds herself pregnant by illicit intercourse to lose the equilibrium of her mental stability, and attempt to destroy her own life, especially, when her mind is haunted by the crime she has committed. She is enjoined not to induce premature labour nor to destroy her fœtus, for the poisonous drugs and other remedies taken by her very often destroy her life without accomplishing the desired object for which she has taken them. Even if she succeed in bringing on abortion and killing her fœtus, her soft parts are often so much injured and weakened that she becomes subject to many diseases which make her life miserable in future.

About the premature expulsion of the fœtus, Dr. Playfair observes as follows:—

"The premature expulsion of the fœtus is an event of great frequency. . . . The influence of this incident on the future health of the mother is also of great importance. It rarely, indeed, proves directly fatal, but it often produces great debility from the profuse loss of blood accompanying it; and it is one of the most prolific causes of uterine disease in after-life, possibly because women are apt to be more careless during convalescence than after delivery, and the proper involution of the uterus is thus more frequently interfered with."[1]

I have already described the diseases following on abortion caused by moving about too soon after abortion.[2] Besides what has been described there, I think it advisable to quote the following extracts:—

"The first, most intense, and rarest form of *Acute Metritis and Acute Endometritis* is that due to septic absorption as witnessed in cases of *abortion and parturition*.[3]"

1 Playfair's Midwifery, Vol. I p. 280.
2 See pages 115-118.
3 Edis' Diseases of Women, p. 121

"Among the exciting causes of *chronic endometritis* may be mentioned. . . . mechanical injuries from passage of the uterine sound, wearing of intra uterine pessaries, or *from attempts to induce abortion*," &c.[1]

"In *pelvic cellulitis* there is generally the history of its following parturition, abortion, or operation."[2]

That the remedies employed by the pregnant woman to induce abortion sometimes prove fatal is demonstrated by the following quotations:—

"It* often occasions abortion, but often fails. When given in large doses for the purpose of procuring abortion, it acts as a powerful irritant poison, and has in several cases caused death."[3]

"Single cases of abortion following internal administration of Actea racemosa (black snake root, or cohosh), and Digitalis, the latter resulting fatally to the mother, have also been reported." "Again, Taylor gives an English case where one hundred and twenty grains of Colocynth taken with intent to excite abortion, caused death,"[4]

"Arsenic; this is sometimes employed in India; it has, in more than one case, caused death without producing abortion."[5]

"Not infrequently the twig or stick employed passes wholly into the uterus, causing fatal inflammation, and after death is found lying wholly or partly within the cavity of the emptied or unemptied uterus, perhaps transfixing its walls. Perforation of the uterine wall by such sticks or twigs may occur from force used in introducing them, or from subsequent contraction of the uterus upon them."[6]

Section II.

On the drugs employed to induce abortion or premature labour.

Thereupon this damsel finds out the old woman

1 Edis' Diseases of Women, p. 138. 2 Ib. p 314. *i.e., Savin.
3 Lyon's Medical Jurisprudence, p. 378. 4 Ib., p. 378. 5 Ib., p. 379.
6 Ib., pp. 376–377.

and consults her. This old woman brings forth *Bang* or *Shaeta* or a fœtus-killing drug,[1] or an *ecbolic*[2] or any (drug) of the drugs causing miscarriage, (and then says to her) :—"Kill the fœtus with this."

(Vend. XV., 14).

Bangha.—"Bangha is bang or mang, a narcotic made from hempseed."[3] *Bangha* or *banga* = भांग, is the dried leaves and small stalks of *Cannabis Indica* or *Sativa*.

Shaêta may be शेगट = *Shegat* = *Sahjna* (Hind.) = *Moringa Pterygosperma* (the Horse-radish tree.) "Kanny Lall Dey, quoted by Chevers, states that one of the methods of procuring abortion in use near Calcutta is the administration of a dose consisting of about half an ounce of pounded sahjna bark mixed with 21 black pepper-corns, and that this is a very dangerous means, the mother as a rule dying when it is resorted to."[4]

Drugs that kill the fœtus may be poisonous substances used as abortifacients, *e.g.*, arsenic, sulphate of copper, colocynth.[5]

Drugs that stimulate the contraction of the muscular fibres of the uterus and expel the fœtus out of it are called ecbolics. They are generally used as abortifacients, *e.g.*, ergot, cotton root-bark and borax[6].

Other drugs that produce miscarriage besides those mentioned above may be *emmenagogues*,[7] *e.g.* savin, rue, yem, papai seeds, carrot seeds, and *purgatives* acting powerfully on the rectum if given in large doses, *e.g.*, aloes, elaterium, gamboge, cucurbitaceous tubers.[8]

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1. *Gnânem*=a fœtus-killing drug. (Vide Kângâ's Dict., p. 174).
2. Fraspâtem=a drug expelling the contents of the uterus, an ecbolic.
3. S. B. E. Vol. IV, p. 179.
4. Lyon's Medical Jurisprudence, p. 217.
5. Ib., pp. 378-379. 6. Ib., p. 377.
7. Substances promoting the menstrual flow.
8. Lyon's Medical Jurisprudence, pp. 378-379.

CHAPTER XVII

On married life, nocturnal discharge, masturbation and sodomy.

Married Life.

And if men of the same religion, either brothers or friends, should come here . . . . seeking a wife, ... "if they should come seeking a wife, you may let a woman marry."[1] (Vend. iv. 44)

That is, if a wealthy man is requested by his brother, or friend, or co-religionist to wed him to a girl, it is considered incumbent on him to comply with his request.

Really, O Spitama Zarathustra! I prefer thus one having a wife to him who leads a life like a celibate here*, one having a house to one having no house, one having children to one having none, one having riches to one having none. (Vend. iv., 47.)

In this para. the married man is preferred to the bachelor, and the man having children to the man having no issue. The disadvantages of leading a bachelor's life are as follow :—

(1.) That the bachelor, having reached the age of puberty, and being influenced by passion, might either become subject to *spermatorrhœa*, or fall a victim to the evil practice of masturbation, if he leads a continent life very long, for Nature will assert her rights.

(2) That the bachelor does not utilize his semen for propagating his species.

(3) And that the bachelor is likely to lead an immoral life, when he cannot overcome his passion. He then runs the risk of contracting the venereal diseases, such as *chancre, syphilis* and *gonorrhœa*. If he contracts gonorrhœa, he may become subject to other diseases which follow in its train, namely, gonorrhœal epididymitis, rheumatism and conjunctivitis,

1 Haug's Essays, p. 319. * *i. e.*, in this world.

balanitis, warts, stricture, &c. If he contracts a chancre, it may be followed by a bubo, or venereal warts. If he contracts syphilis, and if it is not treated early and efficiently, his system entirely becomes saturated with its deadly poison, which exercises its evil influence on every tissue and organ of the body, for not only are the skin and the mucous membranes of the nose, the pharynx, the larynx and the alimentary canal affected, but also the muscles, periosteum, and bones are affected later on The iris, retina, and choroid of the eye undergo morbid changes, so do also the liver, spleen, brain, heart, lungs, kidneys, testes, &c.

The advantages of leading a married life are as follow :—

(1.) That when a married man falls ill, his wife and children look after him during his illness.

(2.) And that when he becomes infirm and decrepit on account of old age, his children maintain and look after him.

Section 1.

On involuntary discharge of semen (nocturnal discharge).

'O Holy Creator of the material world! when one discharges semen[1] involuntarily, what punishment is there for him? Then Ahura-Mazda answered :—He shall receive 800 stripes with the horse-whip and 800 with the *Sraoshô-charana* (whip). (Vend. viii. 26.)

The man who wastes his semen by nocturnal discharge is enjoined to be punished for contracting the disease of spermatorrhœa or for not taking to wife. Spermatorrhœa, if long continued, tells upon his health by the constant drain of the seminal fluid which weakens his constitution and exercises

1 Repeated in the text.

an evil influence upon his mind, especially, if he reads such books as excite passion, for example, novels, if he does not take healthy exercise in the open air, if he does not cheerfully pass some time with his friends and relatives, if he is not regular in his habits, &c. If the spermatorrhœa he has been suffering from is not cured by drugs, he is led to think of nothing else but only of his disease, consequently, he runs the risk of becoming a hypochondriac.

Section II.

On voluntary discharge of semen (masturbation).

O Creator! when one discharges his semen, discharges his semen voluntarily, what punishment is there for him? What atonement is there for him? What purification is there for him? Then Ahura-Mazda answered :—'There is no punishment for him; there is no atonement for him; there is no purification for him, for ever and ever, on account of the inexpiable crime.' (Vend. viii. 27.)

If a man resorts to the evil practice of masturbation to overcome his passion, his tissues, both muscular and nervous, become relaxed in tone. By the waste of muscular tissue he is hardly able to undergo the exertion required for the discharge of his daily duties. But it is the nervous tissue that suffers most, inasmuch as his memory fails, his intellect becomes dull, he becomes morose and peevish, and shuns the agreeable society of his friends and relatives, and consequently he becomes subject to melancholia. His mind soon becomes exhausted after slight application and its power of retaining impressions is lost. If he becomes subject to melancholia, he sometimes attempts to commit suicide. When we consider these evil effects following on masturbation, we do not wonder why it is considered an inexpiable crime.

Section III.

Sodomy.

The ninth best of regions and countries I who (am) Ahura-Mazda, created Khnenta, having its capital Vehrkâna. Thereupon, as an opposition to it, Angrô-mainyu, the deadly, formed the evil, inexpiable deeds of sodomy. (Vend. i. 12.)

"O Holy Creator of the material regions! Who is a demon? Who is a devil-worshipper? Who is a male paramour of demons? Who is a female paramour of demons? Who is a wicked wife of devils? Who is like a devil? Who is a thorough devil? Who is a devil before death? Who becomes an invisible devil after death?" (Vend. viii., 31.)

Then Ahura-Mazda answered :—"O Spitama Zarathustra! The man on whom sodomy is committed, as well as the man who is a sodomite, each is a devil, each is a devil-worshipper, each is a male paramour[1] of demons, each is a female paramour[2] of demons, each is a wicked wife of devils, each is like a demon each[3] is a thorough devil. When a man discharges semen into (another) man or when a man receives semens of (other) men, he is a demon before death, he becomes an invisible devil after death."

(Vend. viii., 32)

The man who allows himself to subject to sodomy as well as the man who commits sodomy is regarded as a devil before and after death, for the latter becomes guilty of not propagating his species by not making the proper use of his semen, and the former becomes guilty of voluntarily allowing the latter to gratify his lust in an unnatural way. The sodomite is said to commit an inexpiable sin if he intentionally commits it, in spite of his knowledge of the evil and pernicious effects accruing from it (*Vide* Vend. viii. 28), for, when

1 S. B. E. Vol. iv., p. 104.

2 Ib. p. 104. 3 I prefer to translate *hâu* by 'each. Ervad Kâng has translated this word by 'he,' 'she.' (Vide Kângâ's Dict. p 585)â

he commits this unnatural crime, he becomes guilty of abusing his virile power by gratifying his lust in an unnatural way.

The pernicious effects of sodomy are the laceration of the mucous membrane of the anus of the passive agent, and the communicability of *chancre* and *gonorrhœa* to him, if the sodomite is suffering from these diseases, while he commits sodomy. Dr. Lyon says :—"The presence of a chancre about the anus, or of a gonorrhœal discharge from the rectum, is, of course, strong evidence that the individual has been the passive agent in the offence, and may be corroborative evidence of his having acted in that capacity."[1]

"It has been alleged that the habitual practice of the offence as an active agent gives rise to certain changes in the genital organs, e. g. elongation and constriction of the penis, and twisting of the urethra."[2]

When the penis is elongated and constricted, it becomes weak, and the man naturally becomes impotent and incapable of propagating his species. When the urethra is twisted, he voids urine with some difficulty.

CHAPTER XVIII.

On fasting and intoxication.

FASTING.

"Then may he (the cultivator) therefore, recite"[3] this proverb :—No one of fasting men can perform vigorous works of righteousness nor heavy works of husbandry, nor can he wish for vigorous begetting of children ; for "by eating every material creature lives, by not eating it dies away."[4] (Vend. iii. 33.)

In this para. it is distinctly stated that every animal lives by eating, and that if it does not eat, it dies. Every creature must take food to keep up the

1 Lyon's Medical Jurisprudence, p. 330. 2. Ib., p. 329.
3 Haug's Essays p. 237.
4 S. B. E. Vol. iv. p. 31.

heat of the body and to replace what is lost by wear and tear while doing work. Heat is necessary for the maintenance of life, for it is known that when the temperature of the body is reduced from 98°·4F to 94°F, life is extinct. To produce heat means to do work. To do work requires the supply of what it lost by wear and tear. To maintain the supply of what is lost by wear and tear necessitates taking food. Thus food is absolutely necessary for keeping up heat-energy and replacing what is lost. Even a creature at rest and in sleep has to work unconsciously every moment, and has to inhale oxygen and exhale carbon-dioxide. The process of inhaling oxygen and exhaling carbon-dioxide constitutes respiration, and brings into play the muscles of respiration. To maintain this muscular action, *i.e.*, wear and tear, necessitates a sufficient supply of new materials to the muscles to build up what is wasted. To maintain this supply of the new materials to the muscles requires a regular supply of these new materials to the blood, which must be introduced into the system in the form of food.

To carry on the circulation of blood in the body requires work on the part of the heart, which is nothing more than a hollow muscular organ with the valves and cords attached to it. To maintain this muscular action, *i.e.*, wear and tear, necessitates the fresh supply of the new materials from the blood to replace the worn-out materials, which must be introduced into it in the form of food from without. Hence food is necessary for the maintenance of the two chief vital processes, viz., respiration and circulation without which life cannot continue even half an hour. The dictum mentioned in the text that 'by eating every material creature lives, by not eating it dies away,' is thus proved to be quite correct.

When a person at rest requires food to maintain life, it is much more necessary for a hard working man to take food not only to maintain life but also to keep

up the energy which is converted into work. Thus a hard working man is required to eat much more than a man at rest. Hence one can easily see the reasonableness of the statement in the text that those who do not eat cannot perform rites taxing strength, cannot carry on the hard work of cultivation, and cannot beget children.

If a person refuses to take food to replace what is lost by constant wear and tear, he emaciates and weakens, for, what is stored up in him in the form of fat and highly developed muscular fibres is used up as food for the maintenance of life, but when that is exhausted, he dies, for it is proved by experiments on many different living creatures, that "life ceases when an animal loses two-fifths of its weight."[1]

Section I.

Intoxication.

"Thou shouldst propitiate Srosh the righteous, (that) Srosh the righteous may destroy the demons Kunda (stupidity ?), Banga (drunkenness, and) Vibanga (dead-drunkenness)."[2] (Vend. xix., 41.)

Banga भंग–भांग, as described before, is the dry stalk of the hempseed plant (Cannabis sativa or indica). It means secondarily the intoxication produced by this plant.

The symptoms produced by taking *Banga* are as follow:—"Cannabis acts on the brain, causing usually excitement, followed by narcotism. During the stage of excitement the individual is the subject of hallucinations, usually, but not invariably, of a pleasurable, and often of a sexual character. In this stage, the patient may show no outward indications of excitement, or he may be constantly laughing, singing, or talking, or furiously delirious. This

1 Guy's Forensic Medicine, p. 349. 2 Haug's Essays, p. 336.

stage is followed by one of narcotism, usually with dilated pupils. Commonly, there is tingling and numbness of parts of, or over the whole body, or, in severe cases, general anæsthesia may be present."[1]

CHAPTER XIX.

Overcrowding.

"Ahuramazda said to Spitama Zarathushtra: I created, O Spitama Zarathushtra! a delightful spot (which had been previously) nowhere habitable; for if I had not created, O Spitama Zarathushtra! a delightful spot (which had been previously) nowhere habitable, all earthly life would have poured forth towards Airyana-vaêjô (the earthly paradise)."[2]

(Vend. I., 1.)

The paras. 8-19 of the second Fargard of the Vendîdâd treat of overcrowding in the reign of Yima (Jamshed) who thrice extended his dominions for the accommodation of his subjects and domestic animals with the object of avoiding the overcrowding of men and beasts in them, as they proved to be too small for their accommodation. From this short description it appears that Yima rendered valuable services to his subjects by extending his dominions and by avoiding the overcrowding of his dominions with men beasts, &c., for the overcrowding of any place is one of the chief predisposing causes of almost every contagious or infectious disease, and especially of such deadly diseases, as typhus, plague, small-pox, &c. The pernicious effects of overcrowding are due to the continuous inhalation of the respired air, when the means adopted for ventilation are imperfect. The respired air contains more carbon-dioxide than the atmospheric air, for in the process of respiration, animals, both rational and irrational, exhale carbon-di-

1 Lyon's Jurisprudence, p. 262. 2 Haug's Essays, p. 227.

oxide and inhale oxygen. To illustrate the injurious effects produced by breathing impure air I quote the following quotations :—

"The normal quantity of carbon-dioxide being ·4 volumes per 1000, it produces fatal results when the amount reaches from 50 to 100 per 1000 volumes; and at an amount much below this, 15 to 20 per 1000, it produces in some persons at any rate, severe headache."[1]

"The effect of constantly breathing an atmosphere containing an excess of CO_2 (up to 1 or 1·5 per 1000 volumes) is not yet perfectly known. Dr. Angus Smith has attempted to determine its effects of, *per se*, the influence of the organic matter of respiration being eliminated. He found that 30 volumes per 1000 caused great feebleness of the circulation, with, usually, slowness of the heart's action; the respirations were, on the contrary, quickened, but were sometimes gasping."[2]

"*Air rendered Impure by Respiration.* The effect of the fœtid air containing organic matter, excess of water and CO_2, produced by respiration is very marked upon many people: heaviness, headache, inertness, and in some cases nausea, are produced."[3]

"When the air is rendered still more impure than this, it is rapidly fatal, as in the cases of the Black Hole at Calcutta; of the prison in which 300 Austrian prisoners were put after the battle of Austerlitz (when 260 died very rapidly); and of the steamer "Londonderry." The poisonous agencies are probably the organic matter and the deficient oxygen, as the symptoms are not those of pure asphyxia. If the persons survive, a febrile condition is left behind, which lasts three or four days, or there are other evidencies of affected nutrition, such as boils, &c."[4]

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1 & 2 E.A. Parkes' Hygiene, p. 130. 3 & 4 Ib., p., 133.

"When air more moderately vitiated by respiration is breathed for a longer period, and more continuously, its effects become complicated with those of other conditions..... But allowing the fullest effect to all other agencies, there is no doubt that the breathing the vitiated atmosphere of respiration has a most injurious effect on the health. Persons soon become pale, and partially lose their appetite, and after a time decline in muscular strength and spirits. The aëration and nutrition of the blood seem to be interfered with, and the general tone of the system falls below par. Of special diseases it appears pretty clear that pulmonary affections are more common."[1]

"Such persons do certainly appear to furnish a most undue percentage of phthisical cases; that is, of destructive lung-tissue disease of some kind. The production of phthisis from impure air (aided most potently, as it often is, by coincident conditions of want of exercise, want of good food, and, excessive work) is no new doctrine."[2]

"The now well-known fact of the great prevalence of phthisis in most of the European armies (French, Prussian, Russian, Belgian, and English) can scarcely be accounted for in any other way than by supposing the vitiated atmosphere of the barrack-room to have been chiefly in fault. This is the conclusion to which the Sanitary Commissioners for the army came in their celebrated report."[3]

"The production of phthisis in animals confirms this view. The case of the monkeys in the zoological gardens,[4] narrated by Dr. Arnott, is a striking instance. Cows in close stables frequently die from phthisis, or at any rate from a destructive lung disease (not apparently pleuro-pneumonia); while horses, who in the worst stables have more free air, and get a greater amount of exercise, are little

1 & 2 E. A. Parkes' Hygiene, p. 133. 3 Ib., p. 134.

subject to phthisis. But not only phthisis may reasonably be considered to have one of its modes of origin in the breathing an atmosphere contaminated by respiration, but other lung diseases, bronchitis and pneumonia, appear also to be more common in such circumstances. Both among seamen and civilians working in confined close rooms, who are otherwise so differently circumstanced, we find an excess of the acute lung affections. The only circumstance which is common to the two classes is the impure atmosphere."[1]

"In the South Afghanistan field force the artillery wintered at Kandahar (1880-81) in tents, and remained free from pneumonia, whilst the disease was prevalent among the infantry who were overcrowded in barracks."[2]

"In addition to a general impaired state of health, arising, probably, from faulty aëration of the blood, and to phthisis and other lung affections, which may reasonably be believed to have their orgin in the constant breathing of air vitiated by the organic vapours and particles arising from the person, it has long been considered, and apparently quite correctly, that such an atmosphere causes a more rapid spread of several specific diseases, especially typhus exanthematicus, plague, small-pox, scarlet fever, and measles."[3]

"The average mortality in this country increases tolerably regularly with density of population. Density of population usually implies poverty and insufficient food, and unhealthy work: but its main concomitant condition is impurity of air from overcrowding, deficiency of cleanliness, and imperfect removal of excreta, and when this condition is removed, a very dense and poor population may be perfectly healthy. The same evidence of the effect of pure and impure air on health and mortality is still more strikingly shown by horses ;.....Rossignol states that, previous to 1836, the mortality of the French cavalry

1-2 & 3. E. A. Parkes' Hygiene, p. 135.

horses varied from 180 to 197 per 1000 per annum. The enlargement of the stables, and the "increased quantity of the ration of air," reduced the loss in the next ten years to 68 per 1000. In 1862-66 the rate of death was reduced to 27½ per 1000, and officers' horses (the property of the State) to 20.

In the English cavalry (and in English racing stables) the same facts are well known. Wilkinson informs us that the annual mortality of cavalry horses (which was formerly great) is now reduced to 20 per 1,000, of which one-half from accidents and incurable diseases. Glanders and farcy have almost disappeared, and if a case occurs, it is considered evidence of neglect."[1]

CHAPTER XX.

Bitter Cold and Winter.

The sixteenth best of the regions and countries (which) I, who (am) Ahura-Mazda created "was the land by the sources of the Rangha, where people live who have no chiefs."[2]

Then, contrary to this, Angra-Mainyu, the deadly, created cold caused by the Daêvas "and hoar-frost as a covering of the land."[3] (Vend. I., 20.)

In this para. bitter cold and hoar-frost are regarded as the products of Angra-Mainyu, for they are very injurious to animals and plants.

Then Ahura-Mazda said to Yima :—O fair Yima Vivanghana! Upon the material world the evils of winter are about to fall, consequently (there will fall) a fierce deadly frost; upon the material world the evils of winter are about to fall, consequently snow-flakes will "fall thick, even an *aredvî** deep on the highest tops of mountains."[4] (Vend. II., 22).

1 E. A. Parkes' Hygiene, p. 105. 2 S B. E. Vol. IV., p. 9.
3 Haug's Essays, p 230. * That is, fourteen fingers deep.
4 S. B. E. Vol. IV., p. 16.

The evil caused by a severe winter is experienced by only those who live in very cold regions. Its destructive power is exerted not only on men but also on beasts, birds and trees.

The effects of intense cold, as described by Drs. Guy and Erichsen, are as follow:—

"The first effect of intense cold is a sense of numbness and stiffness in the muscles of the limbs and face. This is soon followed by torpor and profound sleep, passing into coma and death.

The effect of cold on the circulation is to drive the blood from the surface to the interior of the body, so as to gorge the spleen, liver, lungs, and brain. The genital organs are also congested, sometimes giving rise to priapism. The temperature of the blood itself is lowered; the heart contracts slowly and feebly, and the pulse is small and weak. The congestion of the nervous centres occasions numbness, torpor, somnolency, giddiness, dimness of sight, tetanus and paralysis; and the congestion of the brain sometimes occasions a species of delirium, as happened to Edward Jenner; or the appearance of intoxication, as witnessed by Captain Parry and others in the expeditions to the North Pole."[1]

"When the body has been exposed to severe or long-continued cold, we find, as in the case of burns, that local and constitutional effects are produced.

Local Influence of Cold.—This is manifested chiefly on the extremities of the body, as the nose, ears, chin, hands, and feet, where the circulation is less active than at the more central parts. It occurs to an injurious degree chiefly in very young or aged persons, or in those whose constitutions have been depressed by want of the necessaries of life. In such persons frost-bite and the resulting gangrene are as much due to the habitual low vitality of the extremities as to the low temperature to which they are exposed.

1 Guy's Forensic Medicine, p. 346.

The *Constitutional Effects* of a low temperature need not detain us. It is well-known that, after exposure to severe or long-continued cold, a feeling of heaviness and stupor comes on, and gradually creeps on to an overpowering tendency to sleep, which, if yielded to, terminates in coma, and a speedy, though probably painless, death."[1]

The destructive influence of severe cold on plants is evident from the following quotations :—

"When the temperature sinks below 0°Cent, the functions of almost all plants cease, and if the temperature sinks still lower many plants are killed."[2]

"If thawing be gradual, the formation of ice does not injure some plants, and the tissues recover, the water being again absorbed. If, however, the thawing be very rapid, the water suddenly liberated is not absorbed, and destruction of the part follows. In many plants, frost at once causes the death of the part, whether thawing be slow or rapid. Frost-splitting of the stems of evergreen shrubs, such as the Portuguese Laurel, is not uncommon when the temperature sinks very low."[3]

CHAPTER XXI.

Excessive Heat.

'I, who (am) Ahura-Mazda, created Hapta-Hindu, the fifteenth best of lands and countries (extending) from the Eastern India to the Western India. Thereupon, contrary to this, Angra-Mainyu, the deadly, formed untimely menstruation and excessive* heat.'

(Vend. I., 19.)

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1 Erichsen's *Surgery*, Vol. i., pp. 383 and 385.
2 W. R. McNab's Botany p. 108.
3 Ib., pp. 110—111.
* *Arathwim*, literally *not normal*, hence *abnormal, excessive.*

Excessive heat is regarded as the product of Angra-Mainyu, for it is destructive to animal and vegetable life. When the temperature of the air goes beyond 100° F, it becomes oppressive, but when it goes beyond 110° F, it becomes intolerable and highly injurious to mankind by causing sunstroke or thermic fever in predisposed persons. Excessive heat is injurious to mankind, inasmuch as it impairs the function of digestion and exhausts the nervous system.

The following extracts from E. A. Parkes' Practical Hygiene and Foster's Physiology illustrate the injurious effects of excessive heat :—

"It appears also from Kühne's experiments that the heat of the blood of the vertebrata must not exceed 113° Fahr., for at that temperature the myosin begins to coagulate. Perhaps this fact may be connected with the pathological indication that a very high temperature in any disease (over 110° Fahr.) indicates extreme danger."[1]

"A form of fever (the *Causus* of some writers, or thermic fever) has been supposed to be caused by the direct rays of the sun combined with excessive exertion."[2]

"From an observation of four cases of sun-stroke, and from thirty-three experiments on animals exposed to artificial heat, he* traces all the effects to the augmented temperature of the body, which cannot cool by evaporation from the surface and lungs. Dr. H. C. Wood, jun., of Philadelphia (Thermic fever or Sunstroke, 1872), also holds that the 'efficient cause of sunstroke is the excess of temperature.'"[3]

"On the whole, even when sufficient perspiration keeps the body temperature within the limits of health, the effect of great heat in shade seems to be,

1 E. A. Parkes' Hygiene. p. 422.
2 Ib., p. 423.
3 Ib., p. 424.
* Obernier.

as far as we can judge, a despressing influence lessening the nervous activity, the great functions of digestion, respiration, sanguification, and directly or indirectly the formation and destruction of tissues."[1]

"Effects of Great Heat.—As we said above, the regulative heat mechanism is unable to withstand the strain of too great an external heat or too prolonged an exposure to a great but less degree of heat. The temperature of the body then rises above the normal; and it has been observed that the temperature is more easily raised by warmth than depressed by cold, at least when neither is very intense. When either in this way by external warmth, or through pyrexia the temperature of the body is raised some 6° or 7° above the normal, to 45° or thereabouts, death speedily ensues.....In heat-stroke, more commonly known as sun-stroke , the essential condition of which seems to be a rapid rise of the temperature of the body owing to a sudden failure of the thermotaxic mechanism, the symptoms vary. Sometimes the heart suddenly gives way, at other times the respiratory centre seems to be more directly affected; sometimes convulsions make their appearance, but more commonly death takes place through a comatose condition of the brain, an initial phase of excitement of the central nervous system being not unfrequently witnessed."[2]

That excessive heat is injurious to plants is evident from the following quotation :—

"So when the temperature rises above + 50° Cent. the functions cease to be performed, and a further rise rapidly kills most plants."[3]

1 E. A. Parkes' Hygiene, p 426.

2 Foster's Physiology, pp. 856 and 857.

3 W. R. McNab's Botany, p. 108.

CHAPTER XXII.

Noxious Creatures.

Serpents are said to be created by Angra-Mainyu (*Vide* Vend. I. 3.), for they are highly injurious to men and other creatures. They not only bite them and inflict pain on them, but they also kill them by introducing their deadly poison into their systems by means of their sting, hence the Mazdayasnians are enjoined to kill them. (*Vide* Vend. XIV., 5.)

Corn-carrying ants and *venomous* and *stinging ants* are regarded as noxious creatures, for the former destroy corn, the staple food of man, and the latter sting him and cause pain in him, hence they are ordered to be destroyed. (*Vide* Vend. XIV., 5.)

Gnats hovering about filth are ordered to be killed, for they not only inflict pain on men by their sting, but also they are instrumental by means of their sting in inoculating them with the contagia of contagious diseases. They are now regarded as the chief agents for the propagation of malaria. (*Vide* Vend. XIV., 6.)

Stinking flies are ordered to be destroyed, for they act as agents in carrying a contagium of a contagious or infectious disease from one person to another and from place to place. (*Vide* Vend. XIV., 6.)

CHAPTER XXIII.

SLEEP.

'Qaphnem majdadhâtem yajamaidê, shâitim pasvâo vîrayâo.' (Visp. VII., 3.)

'We praise sleep created by Ahura-Mazda, (which is) the comfort of cattle and men.'

Here sleep is said to be the comfort of cattle and men, for during sleep they get rest, physical and mental. It is praised, because it is absolutely necessary for the existence of men and animals.

Dr. James E. Pollock says—"We seem familiar with the phenomenon of sleep, and recognise it as a necessity of our existence. Without it life would be weariness and exhaustion—nay, could not last long. Shakespeare calls it "chief nourisher at life's feast," and the great master had doubtless a true estimate of what it does for the human body. It is, like food, a nourisher and a repairer of waste. All the wear and tear of the day, the weariness (which means wear) of mind and body, which our various operations have caused, are remedied by this great pause in our lives. We have passed a day of bodily fatigue, or else of mental occupation; we lie down, and rise refreshed and renewed: sleep has "knitted up the ravelled sleeve of care;" we have forgotten the misery or loss, the tired muscles feel fitted for another day's labour, and we meet the world with new powers and fresh resolves; and so "man goeth forth to his work again until the evening."[1]

'We praise the *frarashi* of righteous *Vohu-Nemangha*, (son) of *Avâraoshtri*, for opposing evil sleep, bad dreams,' &c. (Farvardin Yast, 104.)

Here sleep is said to be evil, for, when indulged in to excess, it induces idleness in a person, which brings on poverty, which in its turn brings on misery. Bad dreams are also injurious, inasmuch as they frighten men in sleep, and disturb their mental quietude. They are often caused by indigestion. Dr. Pollock says: "We are all aware that nightmare and the most distressing kinds of dreams may be caused by indigestion."[2]

1 The Book of Health by Malcolm Morris, p. 539.

2 Ib., p. 541.

Sleep for a third part of the day is solicited by a Zoroastrian when he recites the Âtash Nyâesh, for sleeping for more than eight hours a day has a pernicious effect on health.

"'Half our days we pass in the shadow of the earth, and the brother of death extracteth a third part of our lives!" says Browne."[1]

Dr. Pollock says:—"The quantity of sleep requisite varies with age and occupation and habit. The infant spends four-fifths of its time asleep. The old man 'rises up at the voice of the bird.' Young growing lads and lasses require a full allowance of rest, and are very intolerant of time stolen from sleep for study, or even for pleasure. They should have at least eight hours."[2]

Dr. J. Chricton Browne recommends nine hours' sleep for persons twenty-one years old, and eight hours' sleep for persons twenty-eight years old.[3]

'Qafsa dareghô mashyâka nôiṭ tê sachaiti.'
(Vend. xviii., 16 and 24.)

'O man! sleeping long does not befit thee.'

CHAPTER XXIV.

Health-givers.

The term *health-giver* is applied to one who restores health to rational and irrational animals. It is also applied to a thing which maintains or is conducive to their health. The health-givers, as described in Avestâ, may be divided into three classes, namely, direct, indirect, and both direct and indirect. The *direct* health-givers are those beings or things that by their qualifications or innate properties bestow health on other beings. The *indirect* health-givers are those beings or things that promote the health of other beings

1 The Book of Health by Malcolm Morris., p. 539.
2 Ib., p. 544. 3 Ib., p. 296.

by acting as purifying agents. For example, the Homa plant is a direct health-giver, for it bestows health on those beings, who drink its juice, by its tonic and stimulant properties, while a fumigating substance acts as an indirect health-giver by purifying the air we breathe by destroying the pathogenic germs floating in it.

Again, a health-giver may be both direct and indirect. For example, water is a direct health-giver, inasmuch as it supports the animal and vegetable life, and is an indirect health-giver, inasmuch as it acts as a purifying agent.

The following are the health-givers mentioned in Avestâ :—

The sun, sunlight, fire, water, rain, wind, bull's urine, fumigating agents, Homa, Aredvisûr, Tistriya (the Sirius), Beherâm, (the angel presiding over victory), Mâthra Spenta, doctors, the Yaozdâthregar (professional purifier), &c.

These health-givers may be divided into three classes as follow :—

Both direct and indirect health-givers :—

The sun, sun-light, fire, water, and rain.

Indirect health-givers :—Fumigating agents, wind, bull's urine, and the Yaozdâthregar.

Direct health-givers :—Homa, Aredvisûr, doctors, Mâthra Spenta, Tistriya, and Beherâm.

CHAPTER XXV.

The Sun and Sunlight.

When the sun rises, he becomes the means of purifying the land created by Ahura, (he becomes) the means of purifying flowing water, (he becomes) the means of purifying spring-water, (he becomes) the

means of purifying sea-water, (he becomes) the means of purifying stagnant water, (and he becomes) the means of purifying the holy created things which relate to Spenta-Mainyu.' (Khorsêd Nyâesh. 12).

Here the sun is said to be the means of purifying the land, the running and stagnant water, and other useful things, for his powerful rays are highly efficacious in destroying pathogenic and putrefactive germs existing in the air, land, and water, or resting on things lying on the surface of the earth. Hence wells, tanks and reservoirs are recommended by sanitary authorities to be kept open and exposed to the burning rays of the sun, and hence things suspected of containing the germs of contagious diseases are ordered to be exposed to the bright rays of the sun.

'For if the sun would not rise, all the *daêvas* here would destroy all that exist in the seven regions of the world.' (Khorsêd Nyâesh. 13). The *daêvas* mentioned here are the germs which are regarded by the bacteriologists of the present age as the only cause of various contagious or communicable diseases.

'Whoever praises the immortal, brilliant, swift-horsed sun for counteracting mortal pestilence, praises Ahura-Mazda.' (Khorsêd Nyâesh. 14). Here the sun is praised for counteracting pestilence, for his burning rays are efficacious in destroying the germs of the mortal diseases, such as plague, &c. Hence the sanitary authorities of India order to remove the tiles off the roofs, and to keep open for a week or so the windows and doors of the houses in which cases of plague have occurred.

'I praise the club of Mithra of the wide pastures well-aimed at the heads of *daêvas.*' (Khorsêd Nyâesh, 15.)

The club of Mithra means the rays of the sun. The above-mentioned para. means I praise the rays of the sun extending over wide tracts of land and well-directed against the deadly germs floating in the air.

'We praise *Mithra*, the lord of wide pastures.'
(Meher Nyâesh. 6.)

The term *Mithra* is applied to the angel presiding over light. It also means light, the source of light, the morning twilight,[1] &c. *Mithra* is said to be the lord of wide pastures, for light spreads in a moment over extensive tracts of land, and becomes as it were the master of those tracts of land.

'O Mithra! thou art harsh and best for men.'
(Meher Yast. 29.)

Mithra is regarded as harsh for men, when the sun casts his burning rays on them which they cannot bear without experiencing bad effects from them. He is regarded as the best for them, for they owe their existence to the heat and light of the sun over which he presides.

'Who (Ameshâspentas) looked to thee[2] (Mithra) as the lord and leader among the creations of the world, and as the best purifier of these creations.'
(Meher Yast. 92.)

'Whom shall I,[3] the ruler, give.....soundness of body?' (Meher Yast. 108.) Here Mithra is regarded as a health-giving agent. How light acts as a health-giving agent is evident from the following quotations :—

Dr. W. B. Cheadle considers "light as one of the great essentials which favours the development of the young organism to the highest perfection of which its original constitution renders it capable."[4] He says:—"The third great essential is light. We are children of the sun—the central source of energy from

1 *See* K. E. Kanga's Khordeh Avestâ (Ed. v.) p. 42.

2 (Zoroaster) Kanga's Yashts, p. 113. Ervad Kavasji Kanga applies *thwâ* (thee) to Zoroaster, but as no mention is made of Zoroaster in the passage, and as the whole passage refers to Mithra, I prefer to apply *thwâ* (thee) to Mithra, for Mithra may be justly regarded as 'the best purifier of these creations.' Again Mithra calls himself *Khshayamnô* (the *ruler*) in the 108th para. of the same Yast.

3 Mithra. 4 The Book of Health by Malcolm Morris, p. 634.

which directly or indirectly is derived the working force which drives the animal machinery. Light is as essential to the health of the higher animals as it is to that of the higher plants."[1]

He further says:—"Air and light are essential to the development of the higher forms of animal and vegetable life in full vigour and perfection."

"The action of light is known with less precision than that of oxygen. It appears, however, to be essential to the perfect formation of the red cells of the blood—its most vital constituents. Persons who are deprived of light grow pale and bloodless. Young women brought from the country as servants or shop girls, and kept in cellar kitchens, or dark workrooms, notoriously suffer in this way. Miners also are a pallid anæmic class. The want of fresh air has something to do with the result no doubt; yet patients in a well-lighted hospital ward appear to recover more quickly, as a rule, than those in darker rooms, equally well ventilated. Altogether, common experience and observation confirm the conclusion which science hardly yet formulated, that light has a powerful and favourable influence upon animal life. Human beings grow blanched, just as plants do, for the want of it. And it is not a question of colour merely; vitality is seriously lowered also. This is largely felt in great towns shaded by fog and smoke-clouds."[2]

'Swift-flying arrows[3] fly, swift-flying arrows fall upon the heads of *daêvas*.' (Meher Yast 128.)

The swift-flying arrows are the sun's rays, and the *daêvas* are the deadly germs floating about in the air.

1 The Book of Health by Malcolm Morris, p. 634.

2 Ib., pp. 652-653.

3 From the heavenly space (Yashts by Kanga, p. 138). Ervad Kavasji E. Kanga renders the word *mainyavasâo* by "from the heavenly space," but I prefer to render this word primarily as an adjective by *swift-flying*, and secondarily as an adjective used as a noun by *swiftflying-arrows*. *See* Kanga's Dictionary, p. 384.

Dr. Cheadle says :—" The lowest organisms—fungi, and bacilli, and bacteria, whose office in nature appears to be to prey upon and hasten the decomposition of their superiors in the scale of life—love, like other evil things, darkness and close dwellings. Bright sunlight and fresh air are as inimical to them as they are beneficial to the more perfect forms above them.

In giving light and air to our children, then, we favour their healthy growth and repress the growth of noxious germs, destroying also decaying atoms and foul gases, which are fruitful parents of degeneration and disease."[1]

In the end, I quote the following quotations praising the sun and sunlight.

" Hvare-raochô yazamaidê. Hvare barezistem barezimanâm yazamaidê." (Visp. xix. 2.)

' We praise sunlight. We praise the Sun, the most exalted among the exalted.'

" Prime cheerer, Light !
Of all material beings first, and best !
Efflux divine ! Nature's resplendent robe !
Without whose vesting beauty all were wrapt
In unessential gloom ;—and thou, O Sun !
Soul of surrounding worlds ; in whom best seen
Shines out thy Maker ! may I sing of thee ? "[2] (Thomson's Summer.)

" I marvel not, O Sun ! that unto thee
In adoration man should bow the knee,
And pour the prayer of mingled awe and love,
For, like a God thou art, and on thy way
Of glory sheddest, with benignant ray
Beauty and life and joyance from above."[3] (Southey).

1 The Book of Health by Malcolm Morris, p. 652.

2 Iranian Essays by J. J. Modi. Part II. p. 68.

3 Ib., p. 70.

CHAPTER XXVI.

Fire.

'We praise fire, the divine purifier.' (Yas. xxv. 7).

'It (fire) takes away impurity.' (Yas. xxxvi. 1).

Fire is said to be the divine purifier, for it acts as a purifying agent by means of its heat and light. Next to the sun, it is a great source of heat and light, which are used as purifying agents.

'O fire, divine purifier! I praise thy.....health-giving gift.' (Atash Nyâesh. 1.)

Fire is used by persons as a health-giving agent in very cold countries to ward off the bad effects of severe cold. It is also used for the same purpose by the inhabitants of temperate regions in very severe winters.

CHAPTER XXVII.

Water.

'We praise the prosperity and purity of water.'
(Yas. LXVIII., 21.)

'We will seek you[1], "full-flowing and effective for the bathings."'[2] (Yas. XXXVIII. 3).

Water is very commonly and extensively used as a purifying agent. It is used by man for washing and purifying his unclean body, dirty clothes, vessels, &c.

'O waters of Ahura-Mazda and relating to Ahura-Mazda! give him glory and lustre, give him soundness of the body, give him corporal happiness...who invokes you with the present of the best ceremony,' &c.
(Yas. LXVIII. 10-12).

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1 i.e., waters. 2 S. B. E. Vol. xxxi. p. 287.

Water so largely enters into the composition of the body and of its secretions and excretions that it is absolutely needed for the performance of vital processes. When the system requires it for the due performance of these processes, one naturally feels thirsty and drinks water to quench his thirst. If it is not taken into the system, life would be impossible. Sir Risdon Bennet says:—"But for the performance of all the vital processes of the higher classes of living organisms water is required, is even more essential than solid food and only less essential than air. For digestion, and the various chemical transformations which our food undergoes in order to keep up the structure of our frame, water is essential."[1]

Lastly, water is given to febrile patients for quenching thirst and reducing the high temperature of the body in the form of cold baths or wet compresses applied to the head and abdomen.

CHAPTER XXVIII.

Rain.

'O holy Zarathustra! Say:—"Come on, O clouds! come on, thousand showers of rain, ten thousand showers of rain, pouring water forwards, downwards, and towards (the earth) to destroy sickness, to destroy plague, to destroy the sickness caused by Jaini,[2] to destroy the plague caused by Jaini, to destroy *gadha* and *apagadha*."' (Vend. xxi., 2.)

Rain is regarded by scientists as one of the natural purifiers of the atmosphere. It keeps down the dust

1 The Book of Health by Malcolm Morris, p. 139.

2 "The feminine incarnation of vice and disease." (*See* Kanga's Dictionary., p. 185.)

and germs floating in the air. It also acts as a purifying agent indirectly, for the ozone which is found in a larger quantity in the atmosphere after a few showers of rain, especially when attended by lightning and thunder, acts as an oxidising agent and as a disinfectant. Hence in the text the fall of rain is desired for destroying sickness, pestilence, the sickness caused by *Jaini*, and the diseases termed *gadha* and *apagadha*.

It has been observed that the virulence of the plague raging in Bombay diminishes much after a few strong showers of rain. This may be explained by the fact that the rain keeps down the dust and the plague-bacilli floating in the air, and thus prevents them from being carried from one place to another. Again, a few strong showers of rain contribute to the flushing of the drains and to the washing off into the sea of the putrid sewage which might serve as a nidus for the plague bacilli. They thus do away with one of the probable sources of the disease. Hence in the text the rain is said to destroy pestilence.

'Showers shower down fresh water, fresh land, new trees, new drugs and new health-giving plants.'

(Vend. xxi, 3.)

When the water of wells and tanks becomes exhausted by its excessive use by the people for drinking, culinary and cleansing purposes, and by its evaporation by the burning rays of the summer sun; when the green grass covering the surface of the earth is eaten up by cattle or parched up by the scorching heat of the sun; and when the plants become denuded of leaves, flowers, and fruits by the strong blasts of wind blowing in autumn or when they wither up by the severe cold of winter; it is the rain that fills up these dried up wells and tanks with fresh water; it is the rain that restores verdure to the desolate land; it is the rain that gives vitality to

the parched up plants and trees enabling them to yield again green leaves, beautiful flowers and delicious fruits; it is the rain that enables the medicinal plants to produce leaves, flowers, fruits, and roots yielding medicinal properties.

'I, Ahura-Mazda, rain down upon them[1] food for the righteous man and fodder for the beneficient cow, (so that) my man may eat corn, and the beneficient cow (may eat) fodder.' (Vend. v, 20.)

It is by means of rain that man gets corn, the staple article of his food, and fodder for his cattle.

'O Spitama Zarathustra! When he[2] is adored, pleased, loved and welcomed, (he) most beneficent brings down, flowing, beneficial, health-giving water[3] from the Vourukash sea (and) distributes it[4] here in all directions in these countries.' (Tir Yast. 47.)

In this para. the Tistrya star (Sirius) is said to exert some influence in bringing down the beneficial and healthy rain from the Vourukash sea to the earth. The rain-water is said to be beneficial and healthy, inasmuch as men and lower animals sustain their lives by drinking it. Again, the rain purifies the atmosphere of dust, and thus enables them to breathe the pure air which is highly essential for maintaining their lives.

Dr. Hermann Weber says:—"If the rain is not so constant as to prevent exercise in the open air, it has the advantage of purifying the atmosphere of dust, and of rendering it more refreshing, perhaps by the function of ozone, and the diminution of relative humidity: many people, at all events, perceive increased energy during and after rainfall."[5]

1 Standing for the *trees* mentioned in the 19th para. of the same fargard.

2 Standing for Tistrya.

3 In the text in the plural number.

4 In the text *them*.

5 The Book of Health by Malcolm Morris, p. 976.

CHAPTER XXIX.

Fumigation and Fumigating Substances.

The fumigating substances mentioned in the Vendîdâd are Urvâsnâ, Vôhu-gaona, Vôhu-kereti and Hadhânaêpatâ. They are supposed to be sandalwood, frankincense, aloe, and the wood of the pomegranate tree.

Urvâsnâ (from *urvâj* = to be pleased) = râsan. Literally, anything which pleases, hence a plant having a pleasant perfume "Urvâsna is the râsan plant, a sort of garlic."[1]

Vôhu-gaona, (from *vôhu* = वसु = gold, and *gaona* = गुण= colour.) Literally, any substance having the colour of gold, namely, yellow colour. Sandal-wood has distinctly yellow colour, hence *Vôhu-gaona* may mean sandal-wood, though it commonly means benzoin or frankincense.

Vôhu-kereti (from *vôhu* = वसु = gold, and *kereti* = कृति = doing) literally, a substance making a flame yellow. It is supposed to be aloe-wood.

Hadhânaêpatâ (from *hadhâ* = सदा = ever, and *nip, nap*=to be green or verdant) literally, an ever-green substance. It is commonly regarded as the pomegranate tree, but it cannot be the pomegranate tree, for, the wood of the latter has no odour, while the wood of the *Hadhânaêpata* tree is said in the text to have fragrant odour, and its concrete juice was used as an aromatic substance, as is evident from the fourth para. of the fourteenth Fargard of the Vendîdâd, where one who kills the *udra* is enjoined to offer up to the good waters the concrete juice of the Hadhânaêpata tree. The concrete juice may be frankincense, which is an odoriferous gum-resin used as a perfume.

Frankincense is "the concrete turpentine, scraped off the trunks of Pinus. Tæda, the Frankincense Pine, and Pinus australis, the Swamp Pine."[2]

1 S. B. E. Vol. IV. p. 96.

2 Materia Medica by Dr. J. M. Bruce, sixth edition, p. 382.

Hence the Hadhânaêpata tree may be the Frankincense Pine

Fumigation is enjoined to be performed to purify unclean persons and things. (*Vide* Vend. VIII., 2-3, IX. 32). It is used for killing pathogenic germs floating in the air, as is evident from the following paras :—

" If a man shall then piously bring unto the fire, O Spitama Zarathustra ! wood of Urvâsna, or Vohûgaona, or Vohûkereti, or Hadhâ-naepata, or any other sweet swelling wood ; " (Vend, VIII., 79.)

" Wheresoever the wind shall bring the perfume of the fire, thereunto the fire of Ahura Mazda shall go and kill thousands of unseen Daêvas, thousands of fiends, the brood of darkness,"[1] &c. (Vend. VIII., 80.)

The unseen *daêvas* mentioned in the para. 80 are the noxious germs floating in the air, because they are invisible to the naked eye. They are called the brood of darkness, inasmuch as they flourish in the dark.

As regards the unseen Daêvas Darmesteter observes as follows :—

" La purification a pour objet de chasser cette contagion qui passe du mort a vivant, du vivant au vivant, et la théorie de l'impureté et de la purification se réduerait en fait à une théorie de l'hygiène, n'etait que cette contagion est conçue comme l'œuvre d'êtres surnaturels, que nos microbes sont érigés en Daêvas." (Le Zend-Avesta II. Introduction, pp. X-XI).[2]

' Purification has for its object the removal of this contagion which passes from the dead to the living, and from one living person to another, and the theory of impurity and of purification would reduce itself in fact to a theory of hygiene, were it not that this

1 S. B. E. Vol. IV., p. 115.

2 Iranian Essays by Jivanji J. Modi. Part III. p. 67.

contagion is conceived to be the work of supernatural beings and that our microbes are raised to the rank of Daêvas.'

The wood of Urvâsna, or Vôhu-gaona, or Vôhu-kereti, or Hadhânaêpata, or any other sweet-smelling wood is enjoined to be burned, for it contains a volatile oil, which acts as a disinfectant. When any odoriferous substance, such as, sandal-wood, benzoin, aloe-wood, &c. is burnt, its volatile oil, to which it owes its perfume, volatilizes by the heat of fire, and mixing with the air disinfects it by killing the noxious germs floating in the air and perfumes it by its fragrant odour. Wheresoever this odoriferous air is carried by the wind, it purifies the air it mixes with by destroying foul gases and disinfects it by killing these noxious germs, which are "the unseen Daêvas and the brood of darkness" of the text, for it is in the dark that these germs, invisible to the naked eye, thrive and multiply.

CHAPTER XXX.

Wind.

"Vaêm ashavanem yajamaidê." (Yas. xxv. 5.)

'We praise pure wind.'

The wind is believed by modern scientists to be one of the natural purifiers of the atmosphere. Dr. E. Parkes says—"Diffusion, dilution by winds, oxidation, and the fall of rain, are the great purifiers; and, in addition, there is the wonderful laboratory of the vegetable world, which keeps the carbon dioxide of the atmosphere within certain limits. If it were not for these counter-balancing agencies, the atmosphere would soon become too impure for the human race."[1]

1 E. A. Parkes' Hygiene, p. 107.

Dr. Hermann Weber says—"Winds are an important element in climatology, as they produce rapid changes in temperature, moisture, atmospheric pressure, and light, and, so to speak, carry with them climates of distant regions. They are everywhere purifiers of the atmosphere, unless they convey special poisons to some distance."[1]

"Aêtaṭ tê vayô yajamaidê yaṭ tê asti spentômainyaom." (Yas. xxv., 5.)

'O Vayu! we praise thy (wind) which belongs to the creation of Spenta-Mainyû.'

"Vâtemchâ dareshîm Majdadhâtem yajamaidê."
(Yas. xlii., 3.)

'And we praise the strong wind created by Mazda.'

The wind is praised, for, it purifies the atmosphere of its gaseous impurities by dilution, and "acts as a powerful ventilating agent,"[2] whereby men and lower animals get pure air which it is essential for them to breathe for maintaining their lives and preserving their health and vigour.

CHAPTER XXXI.

Bull's Urine.

'O Zarathustra! Thou shalt procure bull's urine from the bull ungelded and rendered fit according to the law.' (Vend. xix., 21.)

It appears from this para. and from the para. preceding it (Vend. xix. 20) that the urine that is used for the purification of the *Hamrit* and the *Paṭrit* is obtained from the bull which is ungelded and rendered fit in accordance with the law. The law

1 The Book of Health by Malcolm Morris, p. 981.

2 *Vide* E. A. Parkes' Hygiene, p. 158

requires that the bull must be entirely white in order to make him fit for the *Nirangdin* ceremony. He is called the *Varasio*. If a single hair on his body be found other than white, he is rejected as unfit for the ceremony.[1]

The urine of the bull is used for purifying the *hamrit* (Vend. xix 20—22, viii 36—39, ix 33—35), the *patrit* (Vend. xix 20—22), the womb of the puerperal woman who has given birth to a still-born child, (Vend. v. 51 and vii. 66), the menstruating woman after the termination of her period (Vend. xvi. 12), the puerperal woman (Vend. v. 54—56 and vii. 69), the culinary vessels that have been brought in contact with a dead body (Vend. vii 74—75), the clothes that have been brought in contact with a dead body (Vend. vii. 14—15), the corpse-bearers (Vend. viii. 11—13), &c. It is used for purifying the above-mentioned persons and things, for it contains such powerful antiseptic acids as carbolic and benzoic acids, (the latter of which results chiefly from the decomposition of the hippuric acid contained in it), as is evident from the following quotations :—

"Carbolic acid is present in the urine of the cow and some other animals."[2]

"The urine of the cow, horse, and man contains sensible quantities of phenol or carbolic acid according to Stadeler."[3]

'Dr. Megmott Tidy says :—"Carbolic acid is found in the urine of cows and other animals."[4]

'*Phenylic acid* was discovered by Wohler in castoreum and afterwards by Stadeler as a constant constituent of the urine of cows, horses and man..... Stadeler concludes that they all pre-exist in the urine

1 S. B. E, Vol. IV. *see* foot-note 2, page 216.

2 Chambers's Encyclopædia.

3 and 4 *Jame-Jamshed* 27th May, 1884.

and that they are therefore products of the metamorphic process."[1]

"Bulingsky says that urine of most of the animals, of cows and horses always, contains a substance insoluble in alcohol, which by the action of dilute mineral acids gives carbolic acid."[2]

"The quantity of it[3] in human urine is very small."
(W. Markham.)[4]

"*Hippuric Acid*, $C_9 H_9 NO_3$, benzo-amido-acetic acid, is present in small quantities in the urine of man (about 15 grains a day), but is the chief nitrogenous constituent of the urine of herbivorous animals. It is formed whenever benzoic acid, or a body which can yield benzoic acid in the organism, is ingested."[5]

"In the urine of man hippuric acid appears to be always present in small quantities, and in the urine of herbivora occurs in large quantities. In these latter it is derived more or less directly, by changes of which we shall have to speak in a succeeding chapter, from constituents of the food containing bodies belonging to the aromatic group (benzoic acid series); but the small quantity present in man and other carnivora appears to come from the metabolism of proteid matter which, as we have already seen, contains an aromatic constituent."[6]

"Hippuric acid or benzoyl-amidacetic acid.—This acid occurs in the urine of herbivorous animals, and is formed within them from the union of the benzoyl compounds contained in grass, fodder, etc., with amidacetic acid existing in some of the bile compounds. If benzoic acid is taken internally by man it appears in the urine as hippuric acid, the latter

1 *Jame-Jamshed* 27th May, 1884.
2 Physiology by Dr. M. Foster, 1883.
3 *i.e.*, phenylic or carbolic acid.
4 *Jame-Jamshed*, 27th May 1884.
5 The Encyclopædia Britannica, ninth edition. Vol. XVII, page 683.
6 Foster's Physiology, 1899, p. 681.

acid being produced by the union of benzoic acid with the amidacetic acid or glycocine present in a compound form in one of the bile salts."[1]

"Hippuric acid—This acid exists in urine of herbivorous animals and in smaller quantities in man's. The urine of cows contains about 1·3 per cent of hippuric acid, and that of horses the maximum amount is about 0·38 per cent."[2]

"Cows' or horses' urine contains a body known as Hippuric acid $C_9H_9NO_3$ which on putrefaction of the urine splits up into Benzoic Acid and Glycocine.

$$C_9H_9NO_3 + H_2O = C_7H_6O_2 + C_2H_5NO_2$$

Hippuric acid + water = Benzoic acid + Glycocine.

Benzoic acid is obtained on a large scale by treating putrid cow's urine with lime, filtering, concentrating the filtrate and precipitating the benzoic acid with excess of hydrochloric acid."[3]

(Alfred H. Allen, F.C.S.)

Benzoic acid "is obtained by boiling hippuric acid (or the urine of cows or horses which contains that acid) with hydrochloric acid."[4]

"Benzoic acid may also be obtained from hippuric acid, which can be extracted from the urine of cows or horses, by boiling that acid with hydrochloric acid."[5]

According to Professor Heiden the urine of herbivorous animals contains the following new-formed organic substances:—

"(1) Urea, (2) Hippuric acid, (3) Uric-pigment with uric acid, (4) Small quantities of carbonic ammonia, (5) Lactic acid, and (6) Benzoic acid."[6]

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1 Luff's Chemistry, page 438.

2 *Jame-Jamshed*, 31st May, 1884.

3 *Jame-Jamshed*, 30th May, 1884.

4 Fownes' chemistry, 1868, p. 745.

5 Luff's Chemistry, page 438.

6 On the Use of Beef's Urine by Dr. Eugen Wilhelm, *see* Appendix.

Not only is the urine of the bull or cow used for purification, but also that of the goat or sheep, but not that of a man or of a woman. The urine of the sheep or goat is used, for it much resembles that of the bull or cow in its composition.

The urine of a man or of a woman is not used, for, as we have seen, it contains carbolic, hippuric and benzoic acids in much smaller quantities than that of the bull.

The urine of the horse is not used, for it contains less hippuric acid than that of the bull.

That carbolic acid as well as benzoic acid acts as an antiseptic is evident from the following quotations :—

"The principal action and uses of Carbolic Acid in disease depend upon its influence on fermentation and decomposition, which are intimately associated with many pathological processes. When this influence is studied apart from the body, we find that most *organised ferments* (yeasts, moulds, and bacteria) are readily deprived of their characteristic powers by solutions of Carbolic Acid ; whilst *chemical ferments (enzymes)*, such as pepsin and ptyalin, are much less readily affected. Although its effect on the *spores* of vegetable organisms is but small, a 5 per cent. solution being required to destroy them, its effect on fully developed microzymes is very great, a 1 per cent. *aqueous* solution certainly destroying the anthrax bacillus, and 1 part in 1,000 being sufficient to prevent its growth. Carbolic acid is thus an *antizymotic*,.....and in the case of the zymosis of septic diseases, an *antiseptic*."[1]

"Carbolic acid is a powerful deodorizer and disinfectant. It precipitates *albumen*, and destroys low organisms. It prevents the decomposition of albuminous fluids by *bacteria*, and the fermentation of sugar by *yeast*. Quantities smaller than those which are

1 J. Mitchell Bruce's Materia Medica, pp. 188—189.

sufficient to kill these organisms suffice to prevent their development."[1]

"Benzoic acid is a stimulant and irritant to raw surfaces. It has an *antiseptic* action destroying low organisms," &c.[2]

"Free Benzoic acid possesses decided antiseptic properties being according to some observers, superior in this respect to salicylic acid. Four grains of benzoic acid added to each pound of preserves will effectually prevent fermentation." (Alfred H. Allen F. C. S.)

CHAPTER XXXII.

Cleanliness.

Cleanliness is a great factor in preserving health. A few passages from the Avestâ language treating of it are worth quoting here

"Yaozhdâo mashyâi aipi jâthem vahistâ."

(Yas. XLVIII. 5.)

'Purity (is) the best for a man from birth.'

This saying occurs in the Spentomad Gâthâ. One of the authors of the Vendîdâd thought it necessary to quote it in the 21st para. of the fifth Fargard and also mentioned the following in the same para :—

"Hâ yaozhadâo Zarathustra yâ daêna Majdayasnis yô hvăm anghhvăm yaozhdâiti humatâischa hûkhtâischa hvarstâischa." (Vend. V., 21.)

'O Zarathustra! the Mazdayasni religion (is) what purity (is). Anybody purifies his own heart with pure thoughts, pure words, and pure deeds.'

Purity is considered in Avestâ to be the best for a man from birth, for it conduces to health, nay, without it health is an impossibility, and without health one cannot be happy. If he wishes to lead a healthy life, he must be cleanly in his habits, he must keep

1 Lauder Brunton's Materia Medica, p. 736. 2 Ib., p. 882.

his body, clothes, bedding, etc., clean, for where there is dirt, there are germs; in fact, dirt serves as the nidus for the germs. So much importance is attached to purity in Avestâ that it is considered to be a modification of the Mazdayasni religion, and is regarded as a synonymus term for it. Darmesteter remarks about it as follows :—

"L'axiome 'Cleanliness is next to Godliness' serait tout a fait Zoroastrien avec cette difference que dans le Zoroastrisme Cleanliness est une forme même de Godliness." (Le Zend Avesta II., p. x.)[1]

'The proverb 'Cleanliness is next to Godliness' would be entirely a Zoroastrian proverb with this difference that in Zoroastrianism Cleanliness is another from of Godliness itself.'

Purity is enjoined in Avestâ not only as regards matter, but also as regards thoughts, words, and deeds. In fact, the Mazdayasni religion is founded on the three well-known words, namely, *humata, hûkhta, hvarsta,* that is, pure thoughts, pure words, pure deeds. That the purity of the mind depends to a certain extent upon the cleanliness of the body is evident from the following opinions expressed by different authors :—

"Even from the body's purity the mind
Receives a secret sympathetic aid."

"So great is the effect of cleanliness upon man that it extends over to his moral character."[2]

Ervad Jivanji Jamshedji Modi says that Addison regards corporeal cleanliness as an emblem of purity of mind.[3]

Dr. Casartelli says :—"La maxime mens sana in corpore sana a tojours été une des dictions favori du Mazdéisme."[4] That is, "The maxim healthy mind in healthy body has been always one of the favourite dictions of the Mazdayasni religion."

1 Iranian Essays by J. J. Modi, Part III, p. 66. 2 Ib., Part II. p. 7
3 Ib., Part II. p. 7. 4. Ib., Part III. p. 69.

"Ashîm vanghuhîm yazamaidê.....dâto-saokâm baêshajyâm." (Yast. 17, 1.)

'We praise good Ashi.....giving happiness and health.'

Ashi originally means Purity, Righteousness, and secondarily means the Divine Spirit presiding over purity and righteousness. *Ashi*, that is, Purity or the Divine Spirit presiding over it, is distinctly stated here to give happiness and health. I think it fit to quote here what Mr. Shirley F. Murphy says about cleanliness.

"*Necessity for cleanliness.*—We must protest against dirt as not only unnecessary but as even antagonistic to our existence. The late Lord Palmerston has aptly described dirt as "matter in the wrong place," and we may plead that wherever the right place for its existence may be found, it is not in the home which we wish to be healthy. An absolute cleanliness is imperatively demanded as one of the first requirements of health, for we have learnt that dirt is not only concerned in producing results due to the inhalation of so much irritative matter, or due to an interference with the functions of the skin, but that it provides but too readily a growing ground for some of the more serious troubles which beset man.

Under the regular and systematic cleansing of all parts of the house, be they bedrooms, sitting-rooms, passages, or offices, be they water-closets, sinks, cisterns, or dustbins, we are as dependent as upon its original construction. By such habits of cleanliness we shall do much to guard against the production of disease in our home, but we must attend to other matters than these if our efforts are to be successful."[1]

Dr. W. B. Cheadle says—"The last important condition of healthful development is complete cleanliness of body and clothing, so that the skin may be

1 The Book of Health by Malcolm Morris; p. 628.

kept in vigorous and ready action, and all noxious excretions and waste material removed from the surface as they accumulate and decay."[1]

"Ahura Mazda said: 'O holy Zarathustra.....(my) fourth (name) (is) the best purity'."

(Hormazd Yast, 7.)

Purity is considered so important that it has been denominated as one of the names of Ahura-Mazda.

Lastly, purity or the angel presiding over it is praised in the Visparad as follows :—

"Ashîm Vanghuhîm yazamaidê.

We praise good Ashi.

(Visp. VII. 1.)

CHAPTER XXXIII.

Homa.

Homa is considered to be such an important health giving plant that a very minute description of it is given in the ninth and tenth chapters of the Yasna which constitute the Homa Yast. It is also described partially in the eleventh, twenty-fifth, thirty-eight, and fifty-seventh chapters of the Yasna and also in Beherâm, Ashishvang and Astâd Yasts.

Homa is the term applied to particular plants, "which grow on the heights of mountains, in the depths of valleys and in the narrow paths of the gorges of mountains which are under the bonds of Jainis."

(Yas. X. 17).

Homa is described as an "elegant" plant (Yas. LVII. 19), having "drooping branches" (Yas. IX. 16), and "spreading exalted fragrance over the field." (Yas. X. IV). It has golden eyes, (that is, yellow buds and flowers). (Yas. LVII. 19). Its juice is so precious

1 The Book of Health by Malcolm Morris, p. 634.

(Yas. x. 17) and possesses so many virtues that its expression from a twig is praised as follows :—

'O wise (Homa)! I praise in prayers thy first expression when the twig is held. O wise Homa! I praise in prayers thy next expression in which (act) I pound[1] (thee) with the strength of a (powerful) man.' (Yas. x. 2.)

Now, I quote the following passages illustrative of the properties of Homa and its juice.

'The filthiness caused by (Daêvas) at once disappears from that house where one certainly carries the health-giving Homa ; where one praises (it) with certainty, happiness and health openly (enter) his abode and (join) his family.' (Yas. x. 7.)

As the filthiness produced by foul gases is said to at once disappear from the house, where Homa is carried, it appears that it acts as a powerful deodorant. It is said to be health-giving, for it protects persons against the diseases resulting from the inhalation of foul gases which it destroys by acting as a deodorant.

'For all other cordials guide (us) on the path of *Aeshma* possessing the deadly weapon ; but the cordial which (is) of Homa guides us on the path of purity and joy. The cordial of Homa makes (us) agile.' (Yas. x. 8.)

This passage indicates that while all other cordials produce mental excitement in men under the influence of which they cannot keep their passions under control and are thus led to perform such deeds as prove prejudicial to their interests, the cordial of Homa stimulates their intelligence and mental activ-

1 Ervad Kanga has translated *nigné* by 'I smite,' taking for its object (the *daêvas*), *see* Kanga's Khordeh Avesta. Ed. V., p. 347. As this para. treats of the expression of the juice from the twig of the Homa tree, and as no mention is made of the daêvas, I prefer to translate *nigné* by *I pound* or *crush*, derived from *ni*=स. नि=down, and *jan*=स. हन् =to strike.

ity which enable them to perform such righteous actions as inspire joy in them.

'Homage to Homa! which makes the mind of a Dervish as great as that of the richest man. Homage to Homa! which makes the mind of a Dervish so great that it speeds aloft by means of knowledge.' (Yas. x. 13.)

This passage shows that the juice of Homa gives a healthy tone to the brain of a man who drinks it, so that he becomes as magnanimous as the richest man, and that it expands his intellectual calibre which enables him to solve the abstruse and mys terious points on any subject.

'I pour (thee)[1] from the silver cup to the gold (one), I will not spill it on the ground, for thou (art) highly precious.' (Yas. x. 17.)

As the juice of Homa is poured from the silver cup to the gold one, it may have slight solvent action on silver and gold which are nervine tonics, and which thus increase its tonic properties.

'Reverence be to Homa, to the holy Mãthra, and to Zoroaster! Reverence be certainly to Homa! for when all other intoxicating liquors guide (us) on the path of Aeshma possessing a deadly weapon, the cordial which (is) of Homa guides us on the path of purity itself.' (Ashishvangh Yast 5.)

I have explaind on the preceding page a passage treating of the same thing.

"Then Homa, the holy one driving disease afar, answered me: 'O Zarathustra! I am Homa, the holy one driving disease afar. O Spitama! search for me, express me for drinking and praise me in a glorious song just as the other *Saoshyants* praised me.'" (Yas. ix. 2.)

Here Zarathustra is called upon to search for Homa, to express its juice for drinking it, and to

1 *i.e.* the juice of Homa.

sing a song of its beneficial virtues. Here Homa is said to be one who dispels diseases.

'As it is the best for the drinker, so it is the best spiritual guide for the soul.' (Yas. IX. 16.)

That is, as the juice of Homa is the best for the drinker for maintaining his health, so it is the best spiritual guide for his soul, for it enables him to comprehend the holy mysterious sayings, and to lead him on the path of virtue.

'O yellow Homa! I ask of thee wisdom.....health, remedy.....strength for the whole body,' &c.
(Yas. IX. 17.)

Here the properties of the juice of Homa are briefly described, namely, its power of giving wisdom, health and strength, and of acting as a remedy for diseases. They are also described in the following quotations :—

"O Homa, "thou that drivest death afar!"[1] I beg of thee this first favour, (namely), the brilliant and all-blissful paradise of the righteous. O Homa, "thou that drivest death afar!" I beg this second favour of thee, (namely), health of this body. O Homa, "thou, that drivest death afar! I beg this third favour of thee, (namely), the long life of vitality."
(Yas. IX. 19.)

'Homa gives strength and vigour to those who ride the curbed horses in the race-course. Homa gives the women desiring to beget children handsome children and also righteous progeny. Homa grants wisdom and magnanimity to the landlords who sit to study religious works.' (Yas. IX. 22.)

'I keep Homa, the protector of the body, which one who drinks secures success from the enemy in the battle.' (Beherâm Yast. 57.)

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1 S. B. E. Vol. XXXI., p. 236.

'O Homa, give me the means of health for which thou art (known) as a health-giver.' (Yas. x. 9.)

Here Homa is distinctly said to be a health-giver,* for it acts as a tonic and deodorant. Homa is praised in Avestâ as follows:—

'We praise Homa, driving away death. We praise all the Homas.' (Yas. x. 21.)

'We praise yellow and exalted Homa. We praise Homa, driving away death.' (Yas. xxxvi. 5.)

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*That the decoction of Homa is even now used by the Pathans of the Kyber Pass as a household remedy in sickness is evident from the letter addressed by Dr. Aitchinson to Shamsululma Ervad Jivanji Jamsetji Modi, who has kindly given me permission to publish it:—

"The specimens you sent me are the twigs of a species of *Ephedra nat.* order *Gnetaceæ.*

"A species grows all over this country—Beluchistan, Afghanistan, Kashmir and Western Thibet—which seems to be identical with the species received. This species is here, in all this country called *Hum* (pronounced as the English word whom), also *huma.* In Beluchistan, it, as well as a totally distinct plant *Periploca aphylla*, is called *Hum.* It grows equally on exposed hills and valleys, consisting of "branches and sprigs," one mass of upright twigs, each twig, if you notice, being made up of joints like the joints of the fingers. When covered with male fls. the bush (from 1 to 2 feet) is golden coloured, and the twigs are more or less so...This plant has no leaves. It is all twigs and jointed. Amongst the Pathans of the Kyber Pass and all over that country the twigs are with water made into a decoction and employed very largely as a household remedy in sickness, and are considered as possessing "health-giving and healing properties." Owing to a general likeness of the stiff rod-like growth, upright and erect of the two plants, in Beluchistan, the natives equally give both the same name.

"No one would mistake the jointed and true Hum for the non-jointed false *Hum*, *Periploca.* The latter does not exist here at all. The *Ephedra* here is only employed to mix with snuff, being first of all burnt. The ashes cause the snuff to be more irritating, whether applied as a sternutatory or to the upper gum under the front part of the lip, as is the habit here.....Before your letter and specimens came, I had made up my mind that the *Ephedra* was the nearest to the "Soma" plant that I had got to, but as it was stated that the Parsis employed the twigs of *Periploca*, it rather put me out. Your specimens are all on my side."

CHAPTER XXXIV.

The Aredvisûr river.

'We praise the Aredvîsûr, pure, wide-flowing, health-giving.....prolonging life, holy,' &c.
(Yas. LXV. 1.)

As the river Aredvîsûr is said to be health-giving and prolonging life, its water must possess tonic and other medicinal properties, which may be due to the certain salts held in solution, *e. g.* phosphates, sulphates, or carbonates of iron, calcium, or manganese.

'Which (Aredvîsûr) purifies the seed of all the males, which purifies the wombs of all the parturient women, which secures easy delivery for all the puerperal women, (and) which gives proper and timely milk to all the parturient women.' (Yas. LXV. 2.)

As the river Aredvîsûr is said to 'purify the seed of all the males,' its water holding in solution alteratives, (*e. g.* salts of iron, the hypophosphites of calcium and sodium, &c,) must have been drunk by the ancient Zoroastrian males to improve the quality of their seed. As it 'purifies the wombs of all the parturient women,' it must contain some disinfecting agent, *e. g.* borax, hence its water must have been used by them for washing and cleansing their wombs, and must have been taken internally on account of its alterative properties. As it 'secures easy delivery for all the puerperal women,' its water must contain some ecbolic in solution, for example, borax, and must have been drunk by them to secure easy delivery. As it 'gives proper and timely milk to all the lying-in women,' its water must contain some salt having galactagogue properties, such as chlorate of potash, and must have been drunk by them to enable their mammary glands to secrete the proper quantity of milk necessary for feeding their infants.

"Young parturient women will solicit you(Aredvîsûr) for easy delivery." (Avân Yast. 87.)

This means that the Aredvisûr will be solicited for easy delivery by young parturient women on account of the medicinal properties possessed by its water.

'Zarathustra asked pure Aredvîsûr again: "O pure Aredvîsûr! with what adoration shall I invoke thee? With what devotion shall I praise thee highly? for Ahura-Mazda made thee flow, made thee flow not within the earth but towards the brilliant sun, so that the serpent (wicked man) may not pollute thee with the humours of the body, spittle, semen, and the poison of the semen.' (Avân Yast. 90.)

In this passage the evaporation of the water of the Aredvîsûr river caused by the heat of the sun is alluded to. Whoever pollutes the river water with the humours of the body, spittle, &c. is regarded as a serpent or wicked man, for the water thus polluted is not fit for drinking or purifying a dirty thing.

'Then pure Aredvîsûr replied: "O just and holy Spitama! You shall invoke me with this adoration, you shall invoke me with this devotion from the rising of the sun to the sun-set."' (Avân Yast. 91.)

Here Zarathustra is asked to invoke Aredvîsûr from the rising of the sun to the sun-set, for the river-water becomes purified by the heat and light of the sun during that interval.

'Tus, a valiant hero, praised Aredvisûr imploring her to give him the soundness of the body.'

(Avân Yast. 20.)

Here the Aredvîsûr river is personified and solicited by Tus to give him the soundness of the body by virtue of the tonic properties of its water.

CHAPTER XXXV.

Doctors.

'O Spitama Zarathustra! if several healers,(namely), healers with the knife, and healers with herbs, and healers with the *Māthra* meet together, they (Mazdayasnians) shall here consult him, namely, the healer with the holy *Māthra*, for, this, namely, the healer with the holy *Māthra*, is the greatest healer of healers, who can radically cure the righteous man.'
(Vend. VII. 44.)

It appears from this para. that in the age of the Vendîdâd there were three sorts of healers, namely, 'healers with the knife,' that is, the surgeons of the present age, 'healers with herbs,' that is, the physicians of the present age, and lastly,' 'healers with the sacred *Māthras*, who were considered to be the best of all the healers, for, according to the text, they used to cure diseases radically. They might be compared to those who profess to heal some nervous diseases in modern times by mesmerism, hypnotism or other occult science. Or they might be those who used to cure persons of their morbid minds by making a very powerful impression on them by reciting certain prayers, which are said to bring about marvellous results by their mystic influence.

In the Ardibehest Yast which is written in an age subsequent to that of the Vendîdâd, five sorts of healers are mentioned, namely, 'the healer by purification, the healer by justice, the healer with the knife, the healer with herbs, (and) the healer with the *Māthra*. The healer with the holy *Māthra* is the greatest healer of healers. He who can radically cure the holy man is really the greatest healer of healers.'

(Ardibehest Yast. 6.)

From this para. it appears that the author of the Ardibehest Yast recognised the five classes of healers.

The two classes mentioned by him besides the three classes mentioned in the Vendîdâd are those of the healer by purification and of the healer by justice. 'The healer by purification' is one who purifies an impure man by giving him the purificatory bath. He is the Yaozdâthregar or the professional purifier of the Vendîdâd. Lastly, 'the healer by justice' is the judge or the magistrate of modern times. He heals or sets the minds of the contending parties at rest by justly deciding the lawsuits or claims tried by him.

Ervad J. J. Modi while detailing the functions performed by the Yaozdâthregar (asho-baêshaza) says in his Irânian Essays, Parts II and III, that his duty consisted not only in giving such injunctions as were prescribed in religious works for purifying an impure person or thing brought into contact with the dead body of a man or of an animal but also in enacting such laws as could assist in preventing an epidemic disease from being introduced into a city when faithfully observed by its people, or as could mitigate its evil effects if it suddenly broke out in the city. In fact, his duty was the same as that of the health officer of the present age and consisted in making laws for the preservation of health.

The functions of the Dâto-baêshaja (the healer by justice) were, according to Ervad J. J. Modi, to do good to a person by the laws of the country and by religious precepts, to do justice by putting in force the laws of the country, to rectify or dispel immorality or vices in accordance with the religious precepts, and to advise a sinful or guilty person, if he or she desired for atonement for the perpetration of sin, to undergo a certain kind of atonement in proportion to the enormity of the crime.[1]

1 Iranian Essays by J. J. Modi. Pt. II. pp. 12-14 and Pt. III, pp. 42-44.

Section I.

On whom shall a surgeon try his skill?

The surgeon was enjoined to try his skill first on the Daêvayasnâns, and then on the Mâzdayasnâns, provided he operated successfully on the former, for the lives of the latter were considered to be more precious than those of the former. If the first three Daêvayasnâns operated on by him died, he was adjudged unfit for practice for ever, and enjoined not to perform any operation on any Mazdayasnân on the penalty of wounding one intentionally. But if the first three Daêvayasnâns operated on were cured by him, he was adjudged qualified to operate on any Mazdayasnân. (*Vide* Vend. vii, 36–40.)

Section II.

Fees charged by the doctor.

"A healer shall heal a priest for a blessing of the just; he shall heal the master of a house for the value of an ox of low value; he shall heal the lord of a borough for the value of an ox of average value; he shall heal the lord of a town for the value of an ox of high value; he shall heal the lord of a province for the value of a chariot and four."[1] (Vend. VII. 41).

"He shall heal the wife of the master of a house for the value of a she-ass; he shall heal the wife of the lord of a borough for the value of a cow; he shall heal the wife of the lord of a town for the value of a mare; he shall heal the wife of the lord of a province for the value of a she-camel."[2]

(Vend. VII. 42.)

"He shall heal the heir of a great house for the value of an ox of high value; he shall heal an ox of high value for the value of an ox of average value."[3]

(Vend. VII. 43.)

1 S. B. E. Vol. IV, p. 86. 2 Ib., pp. 86-87. 3 Ib., p. 87

From these paras. it appears that the doctor was enjoined in the age of the Vendîdâd to charge fees to his patients in proportion to their riches, and that the fees were given to him not in the shape of money but in the form of domestic animals which then formed the chief part of one's riches.

Section III.

Thrita, the first physician and surgeon.

'"Thrita it was who first of the healers,..... drove back sickness to sickness, drove back death to death,"[1] repelled caries of bones, and repelled the heat of fire from the body of man.' (Vend. xx. 2.)

'He asked for an antidote (and) obtained it from *Khshthra-Vairya* to withstand sickness and to withstand death, to withstand pain and to withstand fever, to counteract headache and to counteract cold fever, to oppose *Azana* and to oppose *Azahva*, to counteract *Kurugha* and to counteract snake-bite, to oppose *Duruka* and to oppose *Astairya* (Hysteria ?),to counteract the evil eye,[2] putrefaction, and filthiness which Angra-Mainyu created for the bodies of mortals.' (Vend. xx. 3.)

Thraêtaona.

'We praise the Fravashi of holy Thraêtaona[3] of Athavyân for counteracting pain, hot fever, humours, cold fever and incontinence, and for counteracting the pain caused by a serpent. (Farvardin Yast. 131.)

Is not Thrita the short form for Thraêtaona? Probably Thraêtaona and Thrita are the names of one and the same man.

1 and 2 S. B. E. Vol. IV., p. 227. 3 Faredun.

CHAPTER XXXVI.

MĂTHRA SPENTA.

(The Holy Măthra.)

That there are the health-giving Măthras in Avestâ is indicated by the following quotations :—

'May the best (happiness) be to him, who, having become learned, would tell me openly the Măthra of health, of purity, and of immortality.'

(Yas xxxi. 6. Ahunavaiti Gâthâ.)

So thou shalt recite these words which are most triumphant and most healing. Thou shalt chant five Ahunavars.' (Vend. xi. 3 and Hosbâm.)

'These words (Măthras) which... are powerful and health-giving are for thee' (Zoroaster).

(Beherâm Yast 46.)

'We praise the words truthfully spoken, triumphant (and) health-giving. We praise the words giving health, truthfully spoken (and) triumphant. We praise the Măthra Spenta and the Mazdayasni religion approving of Homa.' (Astâd Yast. 8.)

The cases in which the Măthra Spenta is efficacious are alluded to in the following quotations :—'The Măthra Spenta (Holy Măthra) (is) the most powerful expeller of an invisible Druj.' (Sarosh Yast Hâdokht. 3.)

This sentence means that the Holy Măthra is the most efficacious in driving away the evil spirit from a person possessed with it.

'If thou (Zarathustra) invoke me (Vâyu), I shall recite for thee the words prepared by Mazda giving glory and health whereby deadly Angra-Mainyu may not injure thee, neither a sorcerer, nor one addicted to sorcery may injure thee, neither a demon nor a bad man may injure thee.' (Râm Yast. 56)

The following words and prayers are mentioned in Avestâ as the health-giving Mâthras :—

1. "Which portion of the Mâthra Spenta is..... most health-giving ? "....." Then Ahura Mazda answered : " O Spitama Zarathustra ! The names of us, namely, of Ameshâspands." (Hormazd Yast.)

2. Again, the short prayer *Ahuna-Vairya*, commonly called the *Yathâ-ahu-vairyo*, which is daily recited by a Zoroastrian, is said to protect the body as is evident from the following sentence :—

"Ahunem vairim tanûm pâiti." (Vend. xi. 3.)

'Ahuna-vairya protects the body.'

3. The holy Mâthras that are efficacious in healing a person and purifying a thing are indicated in the tenth and eleventh Fargards of the Vendîdâd. They are the Gâthâ passages which are recited twice, thrice, and four times, the well-known prayer called the Yathâ-ahû-vairyo, already alluded to in the preceding para. and the equally well-known prayer, called the Kem-nâ-Mazdâ.

The holy Mâthras are supposed to be efficacious in curing diseases, especially those affecting the mind of a man by making a powerful impression on it, soothing it, if excited ; stimulating it, if depressed. The powerful impression thus made on his mind conduces to health by co-operating with the drugs administered to him. It is a fact that a man sometimes dies through fright or on suddenly receiving some bad news which so much exercises a depressing influence on his mind that he never recovers from the shock he has received. While fright or the receipt of some bad news makes a depressing influence on his mind, the receipt of good news, on the contrary, enlivens his mind. Just as the receipt of some good news enlivens his mind, so the recital or hearing of the Mâthras, makes a healthy influence on it. Not only do the

Zoroastrians and the Hindus believe in the efficacy of the Mâthras in curing diseases, but also some of the Europeans of the present age believe in the efficacy of spells in curing diseases, which is evident from the following quotation :—

"The people,[1] we are told, place great confidence in their own quacks and witch-doctors. The latter employ spells and herbs, with occasional orthodox remedies, such as mercury in syphilis."[2]

That the *Mâthra Spenta* is praised in Avestâ can be seen from the following quotations :—

"Vîspemcha Mâthrem Spentem yazamaidê."
(Yas. LXXI. 5.)

'And we praise the entire *Mâthra Spenta*.'

"Vaêdhîm Mâthrem Spentem yazamaidê."
(Yas. XXV. 6.)

'We praise the science of the Mâthra Spenta.'

"Mâthrem Spentem ash-qarenanghhem yazamaidê."
(Yas. XXV. 6.)

'We praise the *Mâthra Spenta* "verily glorious (as it is)."'[3]

CHAPTER XXXVII.

The Tistrya star. (Sirius.)

The Tistrya star is distinctly said to be health-giving, as is evident from the following sentence :—

"Tistrîm stârem raêvantem qarenanghuhantem yazamaidê.....baêshajîm." (Tîr Yast 2.)

'We praise the brilliant, luminous,.....health-giving.....Tistrya star.' (Tîr Yast. 2.)

1 *i.e.* the Russians. 2. The Nationalisation of Health, page 208.
3. S. B. E. Vol. XXXI, p. 277.

The Tistrya star is health-giving in the following two ways :—

1. It acts as a purifier by means of its powerful light, as is indicated by the following sentence :—

" Tistrîm stârem raêvantem qarenanghuhantem yazamaidê yô vîspâis naênizhaiti simâo apaya."

(Tir Yast. 43).

' We praise the brilliant and lustrous Tistrya star which sweeps away all the dreadful impurities of water (from it).'

2. It improves the health of the inhabitants of the earth indirectly by bringing down the rain on the surface of the earth. The passage of the Tir Yast alluding to its power of bringing down the rain on the surface of the earth is quoted on the page 151, where its explanation is also given.

The Tistrya star is health-giving in another way, inasmuch as it wards off famine and its pernicious evils by exerting its influence on rain, as is indicated by the following para :—

'O Spitama Zarathustra! I created this Tistrya star worthy of so much adoration.....for opposing this fairy *Duzyâirya*, whom evil-speaking men call by the name of *Huyâirya*, for destroying her, for driving her away, (and) for repelling the evil' (caused by her). (Tir Yast. 50-51).

In the para. 51 famine is personified and called the fairy *Duzyâirya*. The word *Duzyâirya* means *bad year*, that is, the year in which there is no crop, and hence the year of famine.

CHAPTER XXXVIII.

Verethraghna.

(Victory, Beheram.)

Verethraghna is derived from *verethra*, सं०. वृत्र[1] = an enemy, and *ghna* = smiting, and means smiting the

1 *See* Kângâ's Dictionary, page 506.

enemy. As a substantive, it means one who smites the enemy as well as victory. *Verethraghna* also means the angel presiding over victory, namely, Beherâm.

Verethraghna is distinctly stated to be health-giving, as is evident from the following sentences :—

'I (Beherâm, the angel presiding over victory) am the most health-giving as regards health.'

(Beherâm Yast. 3.)

When a person becomes successful in any attempt, he becomes cheerful. Cheerfulness exercises a healthy influence on one's mind.

'Verethraghna (Beherâm) created by Ahura Mazda, went[1] flying for the first time to him[2] (Zoroaster) in the form of the strong and elegant wind created by Mazda, (and) carried[3] (to him) good lustre created by Mazda, lustre created by Mazda and health[4] as well as courage.' (Beherâm Yast. 2.)

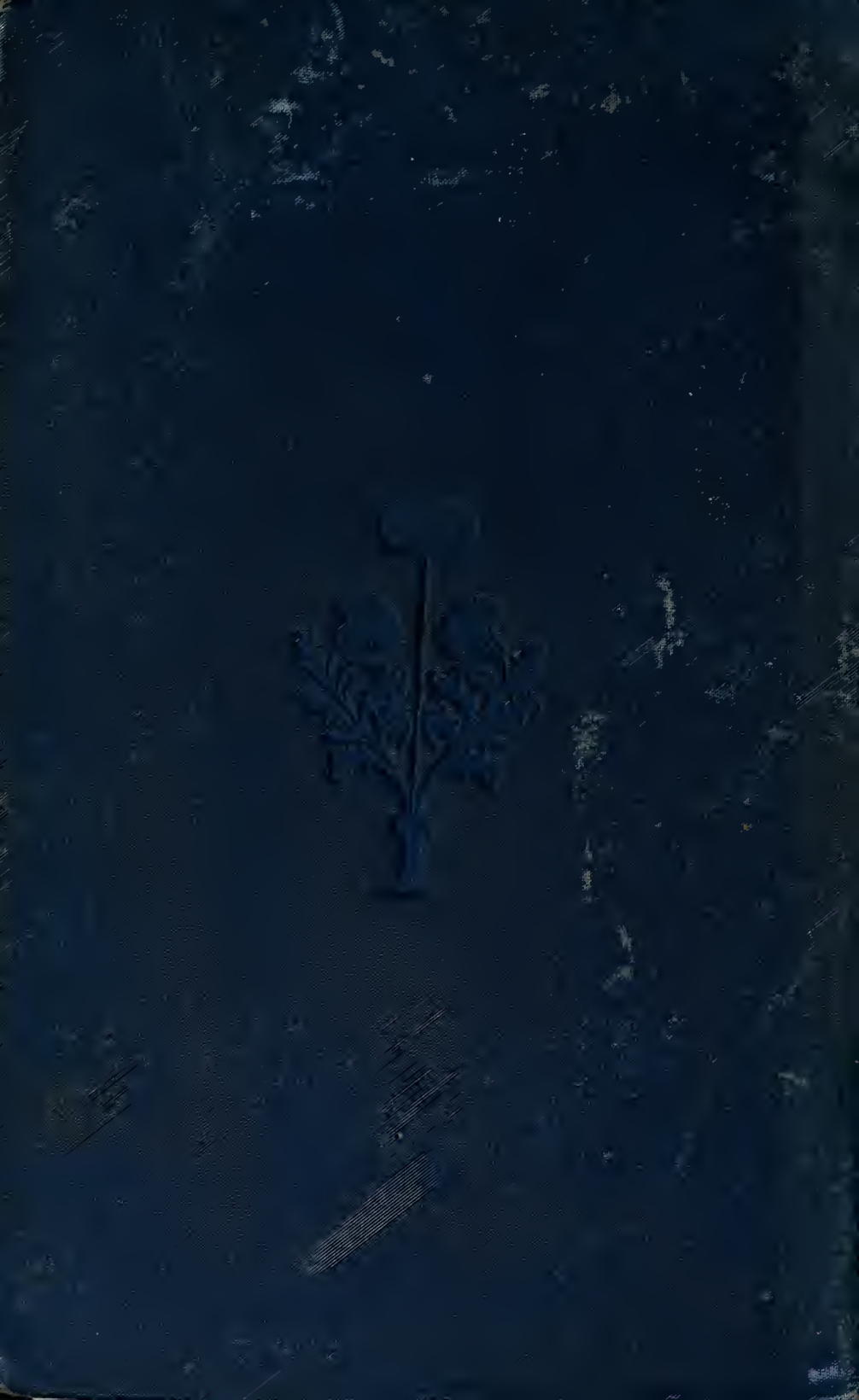
---

1 Kângâ has translated *âjasat* by *goes*.

2 Ervad Kângâ refers *ahmâi*=*him* to one who invokes Beherâm. I think *ahmâi*=him refers to Zarathustra mentioned in the preceding section. That *ahmâi*=him refers to Zarathustra is borne out by the fact that the verbs *âjasat* and *barat* are in the past imperfect tense. Ervad Kângâ has translated both these verbs in the present tense, though he has remarked in the foot-note that they are in the past imperfect tense. (Khordeh Avesta, fifth edition, *see* p. 199.)

3 Kângâ has translated *barat* by *has*.

4 Kângâ has translated *baeshajem* by *remedy*.

ERRATA.

Page.	*Line.*	*Incorrect.*	*Correct.*
4	26	Thus	Tus
19	5	Section II	Section I
22	20	Section III	Section II
46	29	stops	steps
55	14	thoroughl ywith	thoroughly with
58	last line.	7	6
62	17	houses	house
70	28	Zarathustra?	Zarathustra!
75	1	con.	con-
78	17		omit other
86	15	(2)	omit (2)
86	17		insert (2) after "noticed"
87	32	insruct	instruct
96	15	proves	prove
99	20	hypestro- phied	hypertrophied
100	12	tha	that
101	27	be ieve	believe
101	35	conditions.	conditions
101	38	extreme	extreme.
103	9	a tendant	attendant
104	2	pract tioner	practitioner
104	2	a custom	accustom
104	3	u e.	use
111	22	conva	conva-
112	2	water	water,
115	10	and	or
126	13	dis	dis-
127	20	demon	demon,
131	24	men	men,
132	13	effects	effect
161	15	from	form
165	12	mys	mys-
175	35	Mathras,	Mathras